CITY OF
ROCHESTER HILLS

EVALUATION OF FUNDING STRATEGIES FOR LOCAL ROAD RECONSTRUCTION AND MAINTENANCE

REHMANN ROBSON

Certified Public Accountants

REHMANN ROBSON
Certified Public Accountants
A member of THE REHMANN GROUP

an independent member of BAKER TILLY INTERNATIONAL

June 30, 2004

Community Development Viability Committee
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309-3033

Dear Committee Members:

We have compiled our Evaluation of Funding Strategies for Local Road Reconstruction and Maintenance. This final report presents the findings from this review and our conclusions regarding future funding for the City's neighborhood streets.

The CDV Committee is charged with the responsibility of developing sound and prudent financial options to solve the pending issues surrounding the local roads system. Related, we have attempted to find the most realistic funding solution for your consideration. Chief among these, we are suggesting that the Committee consider recommending that the City seek a dedicated roads millage. This and other related issues are discussed in-depth in the body of this report.

We appreciate the cooperation extended to us by the administrative staff of the City, particularly Roger Rousse, Julie Jenuwine and Paul Shumejko. Each provided invaluable information for conducting the analysis.

We have sincerely enjoyed this opportunity to work with the City on this important project. Should you have questions concerning this report, please do not hesitate to contact me at (517) 787-6503.

Very truly yours,

REHMANN ROBSON

Mark W. Nottley, Principal
Governmental Consulting Division

CITY OF ROCHESTER HILLS
EVALUATION OF FUNDING STRATEGIES
FOR LOCAL ROAD RECONSTRUCTION AND MAINTENANCE

Table of Contents

Section		Page
I.	Executive Summary	I-1
II.	Overview of the Local Roads Issue	II-1
III.	Evaluation of Local Road Needs and Related Financial Requirements	III-1
IV.	Evaluation of Funding Options	IV-1
V.	Outline for a Public Education Strategy	V-1

Appendix A: Future Financial Forecast for the Rochester Hills Local Road Fund

- Assumptions Used in Developing a Financial Projection for the Local Road Fund
- Table A
- Schedules 1-7

SECTION I

EXECUTIVE SUMMARY

SECTION I

EXECUTIVE SUMMARY

BACKGROUND

In October 2003, Rehmann Robson was retained by the City of Rochester Hills to evaluate funding strategies for the local roads system. Like most Michigan municipalities, the City has historically struggled to assure adequate funding for the maintenance and reconstruction of neighborhood streets. The City has increasingly realized that the local roads funding problem is becoming critical; threatening the quality of the road system.

In conducting the study, our task has been threefold:

1. Determine the precise needs of the local streets network – and related costs.

2. Evaluate all available funding options and conclude on an appropriate mix of revenue – possibly to include a dedicated local streets millage.

3. Outline an approach for educating the public regarding the needs of the local streets system and the need to move quickly to address a growing problem that will affect quality of life, and potentially, residential property values.

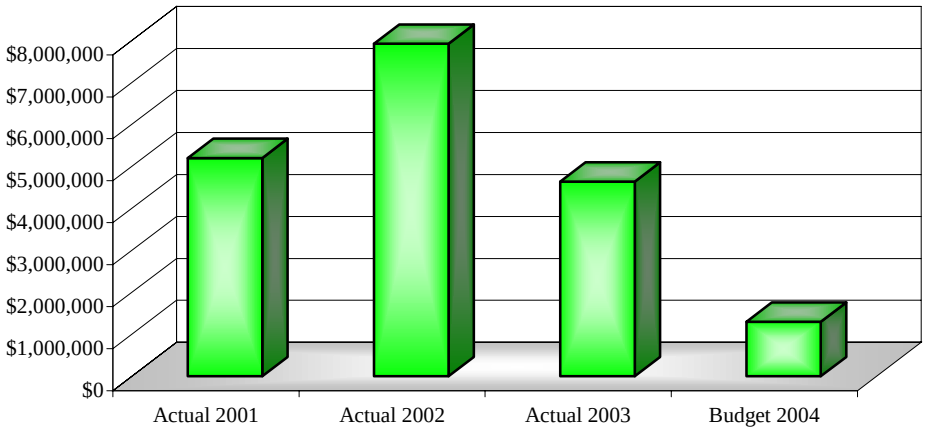
SUMMARY OF FINDINGS AND RECOMMENDATIONS

The body of the report is divided into four sections. Each section of the report is designed to build on the findings of the previous section. Key findings, on a section-by-section basis include the following:

Section II: Overview of the Local Roads Issue

Section II explores the local roads issue on a more macro basis. Local roads funding is not a problem unique to Rochester Hills – and in fact an estimated 140 communities currently have a dedicated roads millage. As seen in Table 1, the City of Rochester Hills has traditionally subsidized Local Road Fund operations and construction significantly – but financial limitations are now apparent – and these subsidies will be ending.

Table 1
Total Local Road Transfer-In
(Source: City of Rochester Hills)

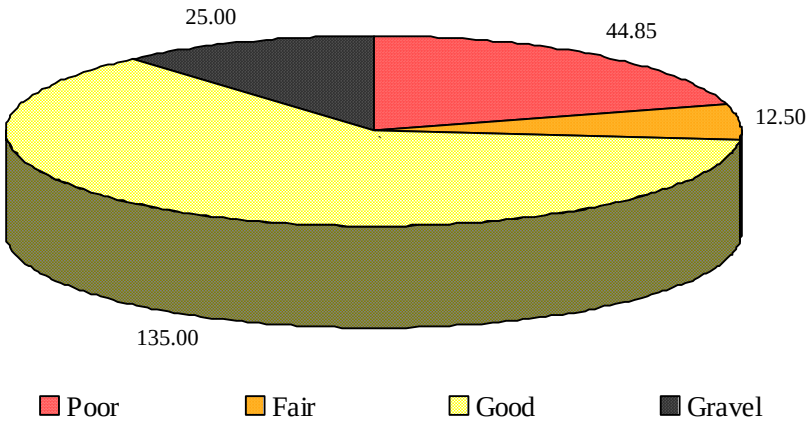


Section III: Evaluation of Local Road Needs and Related Financial Requirements

Section III explores and concludes on the current and emerging reconstruction/heavy maintenance needs of the local streets system. As seen in Table 2, it is estimated that nearly 45 miles of the local (neighborhood) street system is in poor condition. This percentage, and associated costs will grow exponentially if action is not forthcoming. The cost to upgrade poor quality roads, and institute a pre-emptive program to assure a continuing acceptable quality level on all roads, is estimated at $58 million over ten years.

Table 2

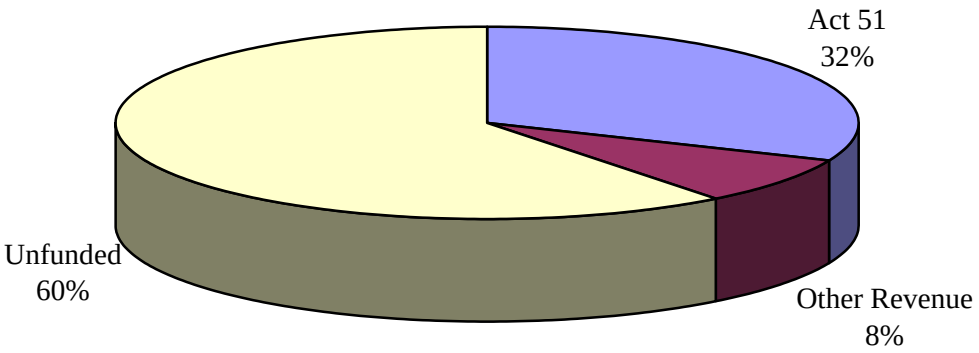
Current Local Road Conditions in Miles
(Based on 2004 PMS Data)



Additional <u>funding will also be needed for the ongoing **routine maintenance**</u> activities such as plowing, salting, drain cleaning, etc. Related, we have developed a ten-year financial forecast of future revenues and expenses. As seen in Table 3, we are estimating that 60% (i.e. just over $45 million) of needed expenditures will not have a funded source.

Table 3

Funding Sources for Local Road Operating Needs



In summary, to satisfy both the construction, and maintenance needs of the local roads system, the City will require an additional $103 million, for which there is no current funding source.

In conclusion, we are suggesting that the City must move quickly to avert a serious, and growing problem in local streets. Summarily, the City must find the means to dedicate a level of funding to the following:

- Reconstruction of current roads that are in poor condition
- A multi-year program for addressing road maintenance needs to perpetually maintain the neighborhood streets system at a high quality level (i.e. addressing future roads needs before they become more expensive reconstructive problems)
- Ongoing routine maintenance activities.

The total costs associated with the program are estimated at $103 million over ten years – a daunting amount that the City simply cannot afford with current millage levels and revenue collections.

Section IV: Evaluation of Funding Options

In Section IV available funding options are examined. General Fund and Major Road subsidies have been used in the past to subsidize local streets funding, but as discussed in Section IV, the financial wherewithal to continue these subsidies is simply not there.

From State and Federal sources, only one revenue source can be realistically anticipated: the monies provided through Act 51 State-shared revenues for local roads. We have concluded that this "foundation" must be supplemented by an additional revenue source – ideally a voted millage dedicated to local/neighborhood streets.

As with most communities, it can be presumed that Rochester Hills residents do not desire higher taxes. However, superior communities must assure sufficient revenues for quality services and infrastructure, if property values and quality of life are to be maintained. Related, as seen in Table 4, Rochester Hills residents enjoy one of the lowest millage levels among similar-sized cities in Southwest Michigan. Residents may wish to consider this fact when weighing the City's request for a local streets dedicated millage.

Table 4

City	Population	2002 Total City Tax Levy
Farmington Hills	82,111	11.41
Pontiac	66,337	20.12
Rochester Hills	68,825	9.37
Royal Oak	60,062	11.68
Southfield	78,296	16.85
St. Clair Shores	63,096	15.01
Taylor	65,868	23.58
Troy	80,959	10.05
Average	70,694	14.76

Source: State of Michigan, State Tax Commission

In regard to millage amounts, the total local road reconstruction and maintenance requirements specified in Section III of the report would require one or the other of the following levies:

- 5 year millage: 4.4743 mills
- 10 year millage: 2.9213 mills.

Section V: Outline for a Public Education Strategy

Prior to requesting a dedicated local streets millage, it is critical that the City of Rochester Hills make a best effort to inform its citizens of the facts surrounding the local roads issue, including:

- The consequences of not acting promptly to address the problem of funding and roads deterioration
- The benefits to be gleaned from a dedicated road millage.

Toward this end, the City must undertake a balanced public education program designed simply to inform. Section V outlines the rudiments of such a program.

SECTION II

OVERVIEW OF THE LOCAL ROADS ISSUE

SECTION II

OVERVIEW OF THE LOCAL ROADS ISSUE

By definition, "local roads" refers to those secondary streets that service a community's residential, or less traveled thoroughfares. As was the case in Rochester Hills, many of these roads were typically constructed during a community's growth stages by the various developers who then passed the costs on to the lot-, or home-buyer.

In regard to ongoing maintenance of these residential and secondary streets, the State of Michigan provides annual funding to local governments by returning a portion of gasoline and weight taxes to each city, village and county (i.e. Act 51 payment). The amount of this payment varies from year-to-year depending on the amount of gas and weight tax collection; as well as a community's population and proportion of the total road system to be funded.

Communities have historically found the State's Act 51 allotment to be insufficient for their local streets maintenance needs. Related, many have enacted voter-approved millages that are earmarked specifically for residential streets maintenance and upkeep. According to the Michigan Municipal League (MML), municipalities with these dedicated road millages currently total 140 in Michigan.

In many cases these road millages were enacted at, or near, a city's incorporation. In these situations, the cities were better positioned to absorb ongoing developmental costs while assuring a more complete and future-minded approach to maintaining the developed street system.

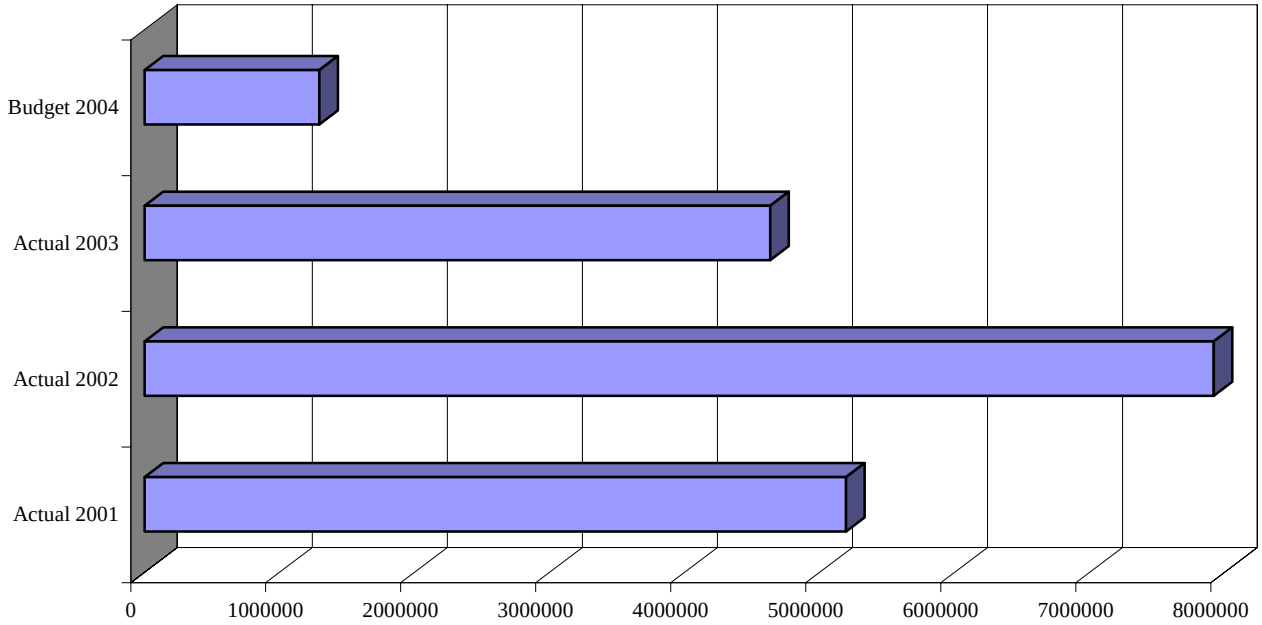
Apparently, as seen in Exhibit 1, a millage of this type has been an ongoing consideration in Rochester Hills; both prior to, and following City incorporation in 1984. The issue most recently surfaced in 1998, when a two-mill request for neighborhood streets repair and maintenance was defeated.

Exhibit 1

Election Date	Election Type	Proposal	Outcome
8/4/1998	primary	2 mills for 15 years to repair, maintain and improve	failed by 66%
11/5/1996	general	3 mills for local road improvement	failed by 67%
8/4/1992	primary	1/2 mill for 9 years	failed by 65%
11/5/1991	general	1/4 mill for 10 years	failed by 50%
11/6/1990	general	Major Road Bond	failed by 55%
8/5/1986	primary	1 mill for 10 years	passed by 54%
11/2/1982	general	1/2 mill for 20 years	failed by 54%
8/7/1980	primary	1/2 mill for five years - chloride and repair & maintenance (renewal)	passed by 59%
8/7/1980	primary	1/2 mill for five years - chloride and repair & maintenance (new)	failed by 61%

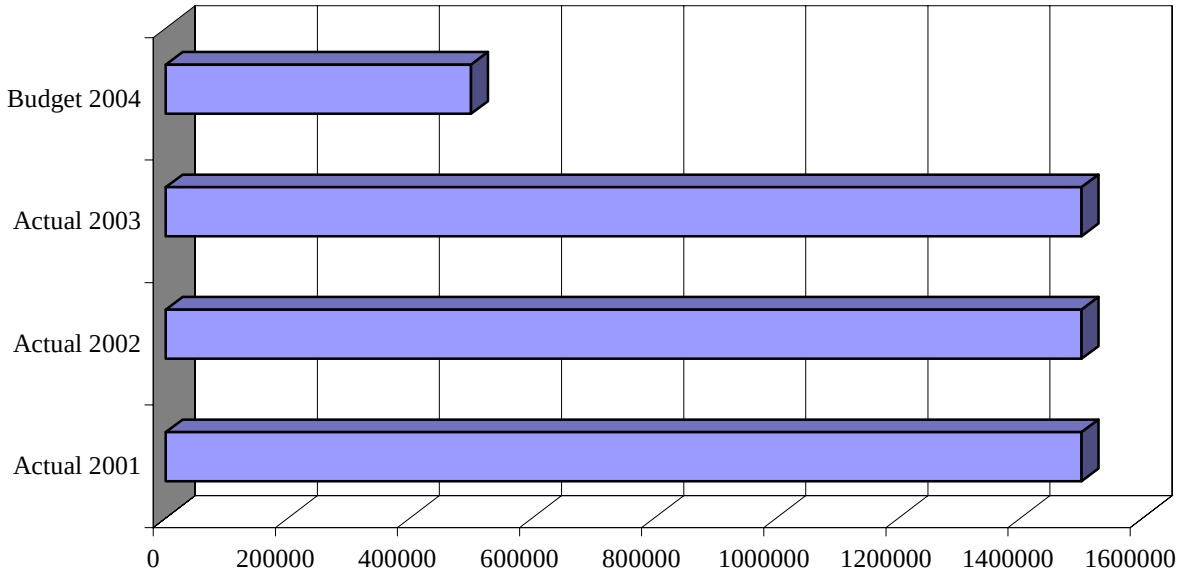
In fact, the City has historically found the means to subsidize and, at lease partially, "bail out" the local streets maintenance and reconstructive needs. Related, as seen in Exhibit 2, significant amounts of subsidy have gone into the Local Road Fund. Much of this has been diverted from Major Road Fund monies (i.e. normally used to maintain or rebuild the collector roads and main arterials under City responsibility) or, as seen in Exhibit 3, from the City's General Fund.

Exhibit 2
Total Local Road Fund Transfers-In



Source: City of Rochester Hills 2004 Budget Plan and 2003 Year-end Audited Line-item Detail

Exhibit 3
General Fund Transfers into Local Road Fund



Source: City of Rochester Hills 2004 Budget Plan and 2003 Year-end Audited Line-item Detail

In regard to the General Fund, the City has historically maintained prudent fiscal policies. Related, the City's total millage levy was 9.3681 mills in 2003; one of the lowest total operating tax levies among southeastern Michigan's incorporated communities. Ongoing tax base growth, as well as fiscal austerity, has allowed the City to operate at this rather modest millage level, while still subsidizing maintenance and upkeep of the local streets network.

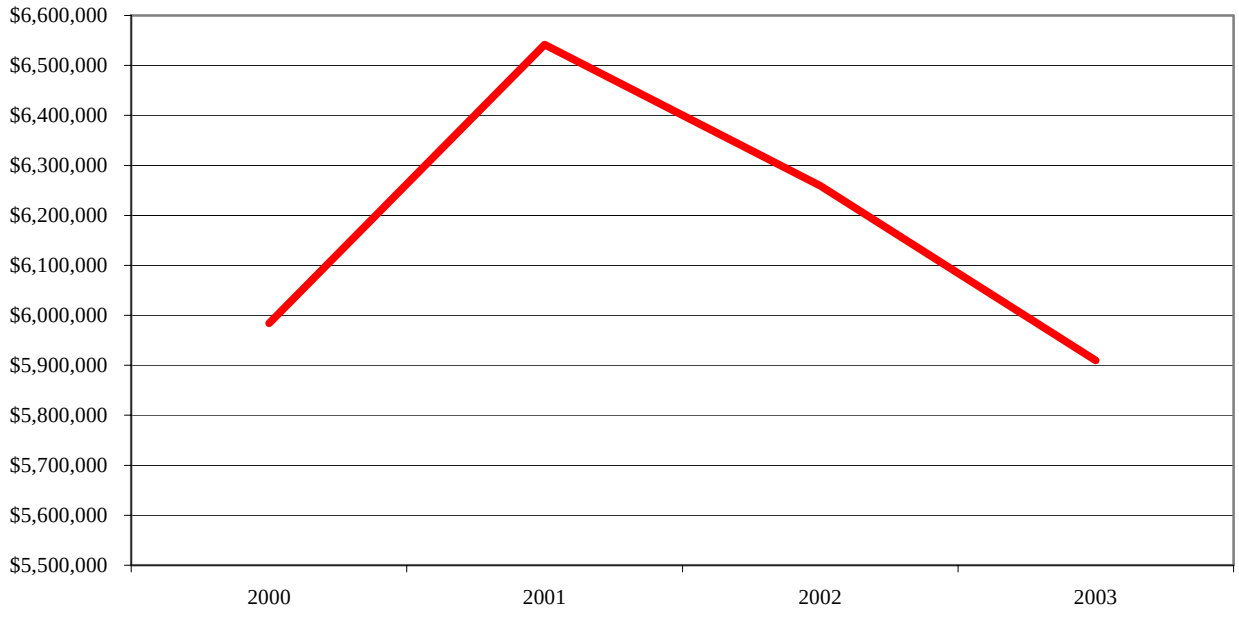
However, the City is now approaching full development and, in turn, limitations on new property tax growth. This fact, coupled with the prevailing economic climate for municipal government is limiting the General Fund's financial wherewithal. More specifically:

- As seen in Exhibit 4, reductions in Rochester Hills' State revenue sharing, a major General Fund revenue source (i.e. 27% in 2003) have been ongoing. This situation is expected to continue as the State government struggles financially.

- The impact of Proposal A has been felt heavily by Michigan's cities including Rochester Hills. Under Proposal A, annual property tax increases are limited to the lower of 5% or the rate of inflation. Related, recent annual increases have been lower than 2%.

Exhibit 4

State Shared Revenue Trends for Rochester Hills



Source: City of Rochester Hills 2004 Budget Plan

The evidence of these impacts can be seen in the City's financial results and budget estimates for the General Fund. Related, the City realized a $279,871 operating loss for the General Fund in fiscal year 2003. To make up for this loss, a corresponding amount of the City's reserves (i.e. General Fund fund balance) were expended. Continuing this trend, an additional $206,367 in operating loss is budgeted for fiscal year 2004.

Faced with these ongoing losses, the City has determined that it can no longer divert General Fund monies to subsidize local streets maintenance and repair. However, the need for neighborhood streets funding still persists, and will increase, if basic preventive maintenance and reconstruction activities are reduced or eliminated. In this situation, the City has retained our services to assist in structuring a multi-year approach

for financing future maintenance, upkeep and reconstruction of the neighborhood streets system. In brief, this has included the following tasks:

1. Evaluate and determine the precise needs of the neighborhood streets system - both maintenance-related and reconstructive needs

2. Evaluate available funding options

3. Develop a multi-year financial estimate that specifies the operating needs (and related costs) of the neighborhood streets system and the expected revenues that are available or forthcoming.

4. If, as anticipated, a financial shortfall exists, specify the precise amount, and correspondingly, the amount of dedicated millage that would be required to meet the needs of the Local Road Fund.

5. Outline a fair and balanced approach for educating the public regarding the study's findings.

The results of this analysis are included in the following sections of the report. In evaluating these issues we have attempted to provide the City, and its residents with an accurate, objective, third-party opinion that can serve as a basis for decision-making on the important issue of local streets.

SUMMARY OF SECTION II

Local road funding is a problem for municipalities state-wide. The City of Rochester Hills has historically subsidized local streets maintenance but can no longer afford this luxury. Our task is to determine the needs of the community and an alternative funding source(s) for this important service area. In the following section we evaluate the needs of the local road system, and related financial requirements.

SECTION III

EVALUATION OF LOCAL ROAD NEEDS AND RELATED FINANCIAL REQUIREMENTS

SECTION III

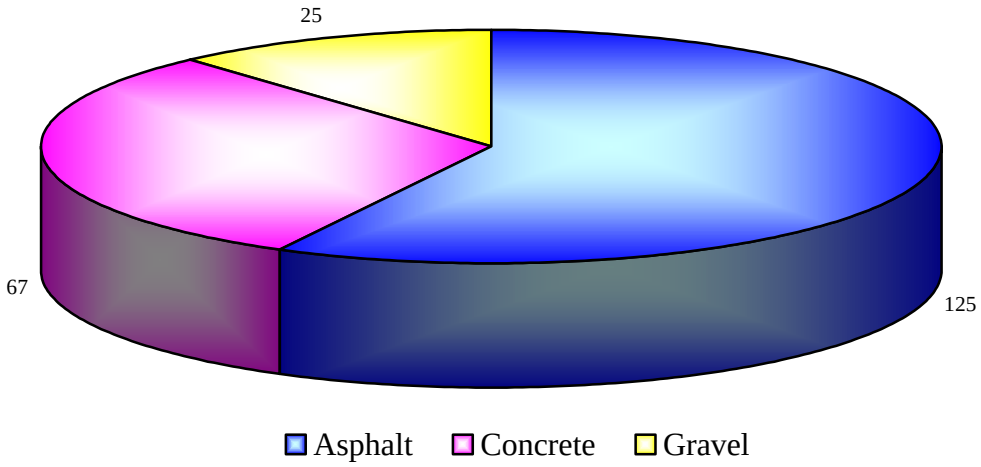
EVALUATION OF LOCAL ROAD NEEDS AND RELATED FINANCIAL REQUIREMENTS

As discussed, the City of Rochester Hills is nearing "built out" status after twenty plus years of strong growth as a community. The development of the local road network has been substantial during the prior twenty years as the City responded to its growth and infrastructure needs. The City is now almost fully in a "maintenance mode", having developed an extensive local road network.

Related, the City of Rochester Hills currently owns, and has responsibility for 217.3 miles of local roads. As seen in Exhibit 5, this includes a combination of asphalt, concrete and gravel roads.

Exhibit 5

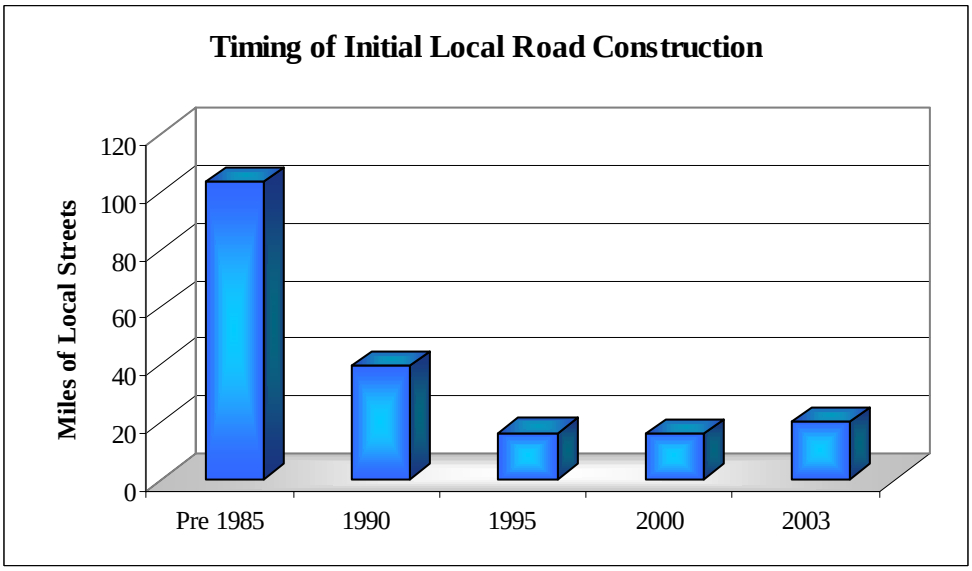
Local Road Type in Miles



Source: City of Rochester Hills engineering staff

The history of local road development is a critical issue when considering the City's current needs and the existing backlog of current construction needs. As seen in Exhibit 6, many of the local roads were paved, or constructed prior to incorporation of the City in 1985. Another growth splurge is evident from 1985 to 1990. As a result, many roads are becoming aged and in need of expensive reconstruction at a similar point-in-time.

Exhibit 6

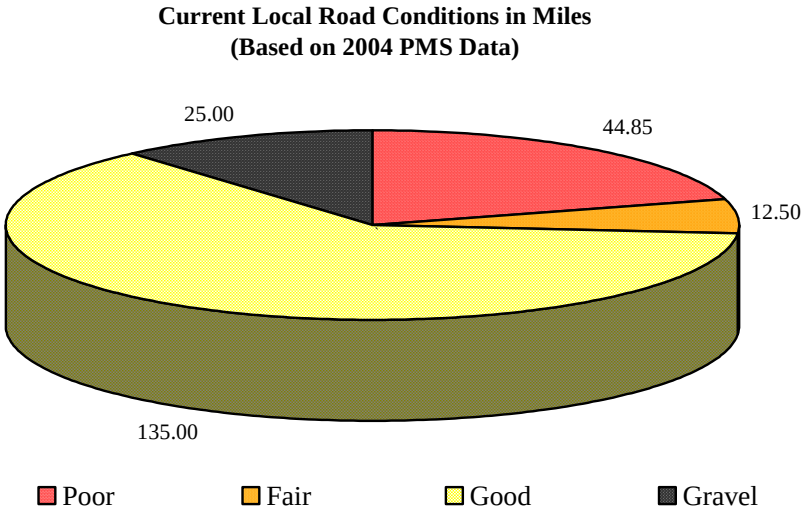


Source: City of Rochester Hills engineering staff

To account for the condition and maintenance needs of the local road system, the City utilizes a pavement management system (PMS) to analyze road conditions. The PMS is a database that ranks each road based on structural stability and ride quality. The assessment is performed by a third-party vendor that utilizes specialized equipment to rate the condition of each individual road.

In conducting the analysis we have worked closely with the City to assure an accounting of the road inventory that is both accurate and reliable. The most recent assessment of road condition, completed in January 2004, is illustrated in Exhibit 7.

Exhibit 7



Source: City of Rochester Hills engineering staff
Note: Miles differ slightly from those presented in Exhibits 10 and 11 due to PMS interpretation.

As seen in the exhibit, the PMS rates 44.85 miles, or more than 25% of paved residential streets in poor condition.

The narrative and visual illustration of each level of road condition, as defined by the PMS, is as follows:

- **ASPHALT Pavement Condition Definitions and Illustrations:**

Good

- **Good -** Pavement ranges in condition from "new" condition to that of having a recent maintenance overlay. Typically, little or no maintenance is required. Pavement may show some initial signs of aging, but is structurally sound.

Fair

- **Fair -** Moderate to significant surface aging is evident. Structural condition of the pavement is still sound, but would benefit from a nonstructural maintenance overlay.

Poor

- **Poor –** Deterioration, to severe deterioration, begins to appear. Pavement may be completely failed. Needs reconstruction with extensive base repair.

- **CONCRETE Pavement Condition Definitions and Illustrations:**

Good

- **Good** - Pavement ranges in condition from "new" condition to that of having some minor recent joint repair. Typically, little or no maintenance is required. Pavement may show some initial signs of minor surface scaling and/or minor transverse cracks, but is structurally sound.

Fair

- **Fair** - Evidence of joint and/or crack spalling and/or faulting. Some partial depth joint repair is needed. Miscellaneous sections of full depth slab replacement is necessary.

Poor

- **Poor** – Deterioration, to severe deterioration, begins to appear. Extensive potholes are present and almost total loss of pavement integrity. Severe and extensive settlements of frost heaves. Needs reconstruction with extensive base repair.

In assessing this information, two issues must be considered. Specifically:

- What financial resources are required to correct current, identified problems?

- What, if any cost, is associated with delay?

In regard to the former, we have consulted with the City's engineering staff to determine the costs associated with a multi-year program to improve those roads classified as poor; and assure that all residential streets maintain a minimum of a fair rating.

As seen in the following Exhibit 8, improving those residential streets currently classified as poor or fair would require an estimated outlay of $52,340,640 in today's dollars. Implementing this program over 10 years results in a cost of over $58,000,000 when accounting for inflation.

Exhibit 8

Cost per Mile for Overlay & Reconstruction		
Concrete Reconstruction	$	1,214,400
Asphalt Reconstruction	$	910,800
Asphalt Overlay	$	121,440
Road Conditions (Based on 2004 PMS Data)		
Miles Asphalt Reconstruction		12.00
Miles Concrete Reconstruction		32.85
Miles Asphalt Repair		12.50
Total Costs for Overlay & Reconstruction		
Concrete Reconstruction	$	39,893,040
Asphalt Reconstruction	$	10,929,600
Asphalt Overlay	$	1,518,000
Total Costs for Overlay & Reconstruction	$	52,340,640

Source: City of Rochester Hills engineering staff

A second, and larger issue is simply the longer-range goal of assuring that the system maintains a uniform, and acceptable level of road quality on an ongoing basis. Until now, this goal has been thwarted by the lack of available funds.

This is not to say the problem has not been recognized and partially addressed. As previously seen in Exhibits 3 - 4, significant amounts have been transferred to the Local Road Fund from the Major Road Fund and the General Fund, and a $3,000,000 transfer from the Capital Improvement Fund was received in fiscal year 2001. The City has attempted to use these monies to craft a pre-emptive maintenance program, but the monies have proven to be insufficient.

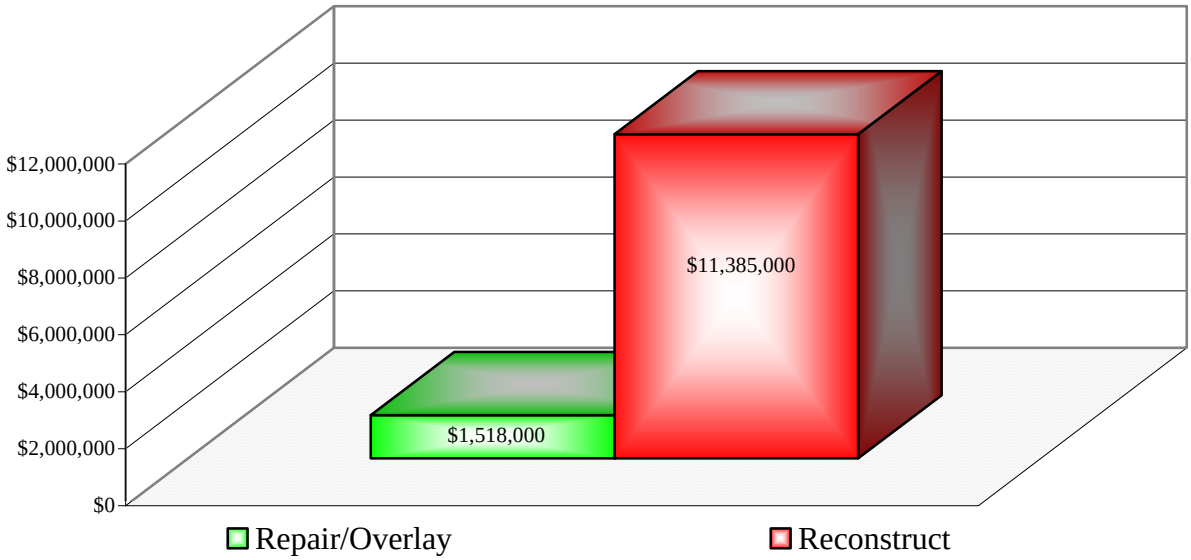
Current road inadequacies aside, a pre-emptive approach must be an integral component of any reconstructive program, albeit, with an adequate funding level. Simply put, the delay of road maintenance has associated costs. This is true for much of the current road inventory requiring reconstruction, as well as the roads classified as fair or good.

To demonstrate this, one only need look at the potential impact of delaying maintenance on those residential streets now classified as "fair" by the PMS system. Specifically, there are currently 12.5 miles of local asphalt roads listed in fair condition. A protective overlay for these roads would cost approximately $1,518,000, and would extend the life of the roads approximately 8 - 12 years. If, however, those roads are not treated now, they will continue to deteriorate and require more extensive reconstruction. The cost to reconstruct 12.5 miles of roads would be $11,385,000 (without consideration

of price inflation). Thus, the cost savings associated with pre-emptive maintenance of these roads could be in excess of $9.8 million. This cost differential is estimated in the following Exhibit 9.

Exhibit 9

Cost to Repair vs. Reconstruct: 12.5 Miles of Asphalt Road
(using today's cost estimates without adjustments for inflation)



Source: City of Rochester Hills engineering staff

Thus, to be effective and successful, Rochester Hills' local road reconstruction program must contain two elements. Specifically:

- A strategy and funding mechanism for reconstruction of the current inventory of subpar roads
- A funded, ongoing preventive maintenance program that serves to lengthen the useful life of a road at the most efficient point-in-time.

Summarily, Rochester Hills' road reconstruction program should include the existing needs, listed in Exhibit 8, as well as sufficient monies to fund a pre-emptive repair program that will address reconstruction needs before they become larger more expensive problems. To accomplish this, the City's engineering staff, utilizing the PMS roads inventory system, have developed cost schedules for five and ten year funding scenarios, as seen below in Exhibits 10 and 11.

Exhibit 10 - ***Five –year Local Road Rehabilitation Plan***

Year		Concrete Poor	Asphalt Poor	Concrete Fair	Asphalt Fair	Total Cost for Year
1	Miles at Start of Year	28.6	12	15	10.8	
	Miles Rehabbed	0	5.46	15	10.8	
	Cost to Rehab	$0	$4,972,968	$4,554,000	$1,311,552	$10,838,520
	Miles Left to Rehab	28.6	6.54	0	0	
2	Miles at Start of Year	28.6	6.54	1.74	2.46	
	Miles Rehabbed	3.34	6.54	1.74	2.46	
	Cost to Rehab	$4,056,096	$5,956,632	$528,264	$298,742	$10,839,734
	Miles Left to Rehab	25.26	0	0	0	
3	Miles at Start of Year	25.26	0	0.86	1.55	
	Miles Rehabbed	8.56	0	0.86	1.55	
	Cost to Rehab	$10,395,264	$0	$261,096	$188,232	$10,844,592
	Miles Left to Rehab	16.7	0	0	0	
4	Miles at Start of Year	16.7	0	1.84	2.42	
	Miles Rehabbed	8.22		1.84	2.42	
	Cost to Rehab	$9,982,368	$0	$558,624	$293,885	$10,834,877
	Miles Left to Rehab	8.48	0	0	0	
5	Miles at Start of Year	8.48	0	0.44	2.84	
	Miles Rehabbed	8.48		0.44	2.84	
	Cost to Rehab	$10,298,112	$0	$133,584	$344,890	$10,776,586
	Miles Left to Rehab	0	0	0	0	

Road repair strategy is based on:
1) Repairing those roads in fair condition prior to those in poor condition.
2) Replacement of existing roads with in-kind materials.

Source: City of Rochester Hills engineering staff, with modifications based on review.

Note: Miles at start of year 1, differ slightly from totals presented in the body of the report, due to PMS data interpretation.

*Exhibit 11-**Ten –year Local Road Rehabilitation Plan***

Year		Concrete Poor	Asphalt Poor	Concrete Fair	Asphalt Fair	Total Cost for Year
1	Miles at Start of Year	28.6	12	15	10.8	
	Miles Rehabbed	0	0	15	10.8	
	Cost to Rehab	$0	$0	$4,554,000	$1,311,552	$5,865,552
	Miles Left to Rehab	28.6	12	0	0	
2	Miles at Start of Year	28.6	12	1.74	2.46	
	Miles Rehabbed	0	5.52	1.74	2.46	
	Cost to Rehab	$0	$5,027,616	$528,264	$298,742	$5,854,622
	Miles Left to Rehab	28.6	6.48	0	0	
3	Miles at Start of Year	28.6	6.48	0.68	1.55	
	Miles Rehabbed	0	5.99	0.68	1.55	
	Cost to Rehab	$0	$5,455,692	$206,448	$188,232	$5,850,372
	Miles Left to Rehab	28.6	0.49	0	0	
4	Miles at Start of Year	28.6	0.49	1.84	2.42	
	Miles Rehabbed	3.75	0.49	1.84	2.42	
	Cost to Rehab	$4,554,000	$446,292	$558,624	$293,885	$5,852,801
	Miles Left to Rehab	24.85	0	0	0	
5	Miles at Start of Year	24.85	0	0.44	2.84	
	Miles Rehabbed	4.42	0	0.44	2.84	
	Cost to Rehab	$5,367,648	$0	$133,584	$344,890	$5,846,122
	Miles Left to Rehab	20.43	0	0	0	
6	Miles at Start of Year	20.43	0	0.42	2.94	
	Miles Rehabbed	4.42	0	0.42	2.94	
	Cost to Rehab	$5,367,648	$0	$127,512	$357,034	$5,852,194
	Miles Left to Rehab	16.01	0	0	0	
7	Miles at Start of Year	16.01	0	0.96	3.58	
	Miles Rehabbed	4.22	0	0.96	3.58	
	Cost to Rehab	$5,124,768	$0	$291,456	$434,755	$5,850,979
	Miles Left to Rehab	11.79	0	0	0	
8	Miles at Start of Year	11.79	0	0.64	5.49	
	Miles Rehabbed	4.11	0	0.64	5.49	
	Cost to Rehab	$4,991,184	$0	$194,304	$666,706	$5,852,194
	Miles Left to Rehab	7.68	0	0	0	
9	Miles at Start of Year	7.68	0	0.48	5.78	
	Miles Rehabbed	4.12	0	0.48	5.78	
	Cost to Rehab	$5,003,328	$0	$145,728	$701,923	$5,850,979
	Miles Left to Rehab	3.56	0	0	0	
10	Miles at Start of Year	3.56	0	0.74	8.5	
	Miles Rehabbed	3.56	0	0.74	8.5	
	Cost to Rehab	$4,323,264	$0	$224,664	$1,032,240	$5,580,168
	Miles Left to Rehab	0	0	0	0	

Exhibit 10 notes also apply to Exhibit 11.

Key features of Exhibit 10 and 11 include the following:

- Existing subpar roads are all replaced on a set schedule over the selected time period
- Roads classified as "fair" are repaired prior to deteriorating to poor condition.

Related, the overriding philosophy of the approach is that the roads are repaired at a lower cost before they ever deteriorate into poor condition.

Summarily, the schedules illustrated in Exhibit 10 and 11 address two key issues, including:

- Capital funding requirements for repairing all current subpar roads
- A strategy and funding source for assuring that all roads are maintained at an acceptable level in future years
- The total cost for this program is estimated at $58,255,983 over ten years

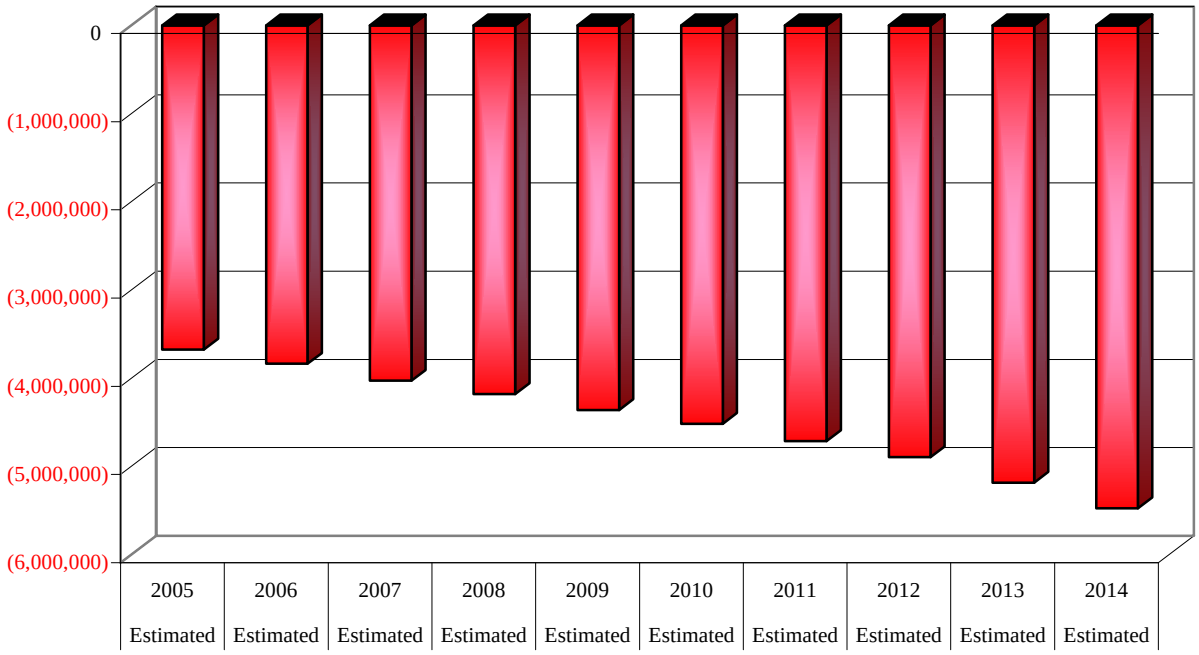
A third issue related to local roads involves funding for basic ongoing road maintenance tasks such as salting, plowing, line striping, signs, etc. These activities and others are reflected in the various operating activities in the Local Road Fund budget.

In regard to funding for ongoing maintenance, we have evaluated financial trends for the City's Local Road Fund. To aid in this task, we have developed and utilized a financial model (included in Appendix A). The model has been developed to estimate future revenues and expenditures for the Local Road Fund on a year-by-year basis for the period, fiscal year 2005 through fiscal year 2014.

The "bottom-line" results of the analysis are included in the following Exhibit 12.

Exhibit 12

Estimated Operating Loss for 2005-14



As seen in the exhibit, and in greater detail in Appendix A, the Local Road Fund is estimated to realize ongoing operating losses in each of ten future fiscal years, amounting to a combined deficit of $45,233,446. With shortfalls of this magnitude, the City will not be able to continue road maintenance activities at current levels. While the precise impact cannot be established, it can be presumed that routine services such as street plowing and salting, pothole patching, sweeping and storm drain maintenance will be reduced significantly. It is likely that this impact will be felt as early as the winter season of 2005. Consequently, the financial health of the Local Road Fund must also be assured for these key maintenance activities.

SUMMARY OF SECTION III

In summary, the local road system in Rochester Hills is beset with a mounting backlog of deteriorating residential streets. If the deterioration is allowed to persist, the cost of reconstruction will increase dramatically - while ride quality and road appearance worsen.

Compounding the problem is the anticipated shortage in road maintenance funding. If, as expected, funding shortfalls persist, basic services, such as plowing, salting and routine maintenance will be scaled back.

To rectify this situation both for the long- and short-term, the City must find the means to dedicate a significant level of funding to the following three primary activity areas:

- Reconstruction of current roads that are in poor condition
- A multi-year program for pre-emptively addressing road repaving/repair needs at the most cost-efficient point-in-time
- Funding for ongoing maintenance services that is adequate to meet community needs and service expectations.

The total estimate for the ten-year road reconstruction program illustrated in Exhibit 11 is $58,255,983. This does not include the monies needed to maintain the Local Road Fund budget above and beyond annual Act 51 allocations. This amount is estimated to be $45,233,446. In summary, the total amount required to cover operations and support a reconstruction program over a ten-year period is estimated to be $103,489,429.

In the following section we examine potential funding sources.

SECTION IV

EVALUATION OF FUNDING OPTIONS

SECTION IV

EVALUATION OF FUNDING OPTIONS

As discussed in Section II, funding for local road maintenance and reconstruction is an issue for all communities, due to the relative inadequacy of State revenue sharing.

In this section, we examine potential funding sources for Rochester Hills' local roads, noting the advantages, disadvantages and limitations of each. Options that are considered include:

- Act 51 allocation
- Major Road Fund subsidy
- Special Assessment Districts (SADs)
- General Fund subsidy
- Dedicated local road millage.

Each is discussed separately below:

ACT 51 ALLOCATION

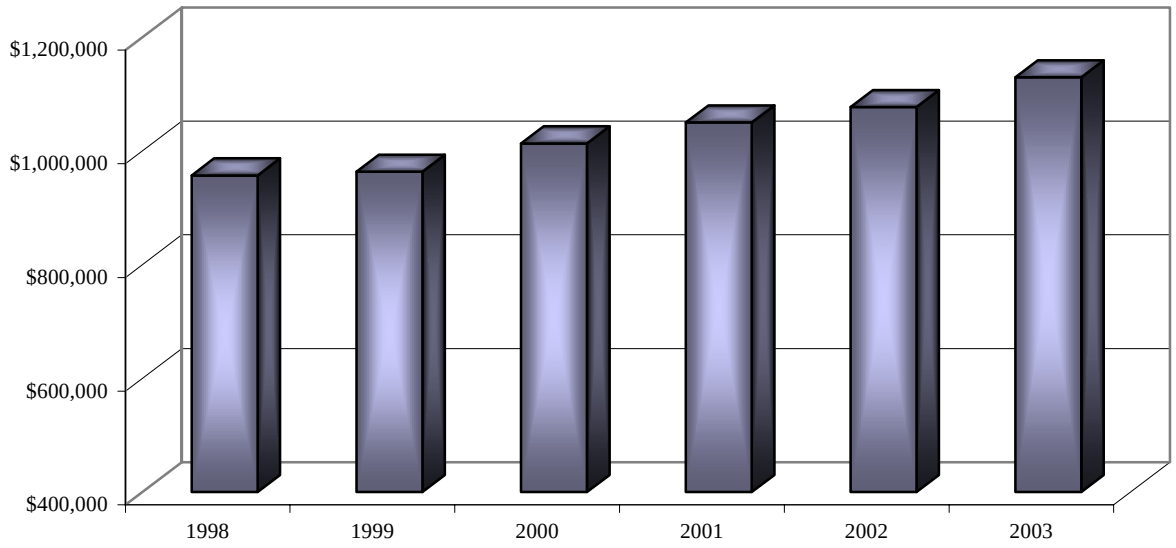
Annual Act 51 allocations from the State to the local governments are the budgetary foundation for funding local road reconstruction and maintenance. However, these funds are limited and typically insufficient to meet ongoing need.

As discussed earlier, many communities have addressed the funding deficit through a local road millage. Others, like Rochester Hills, have subsidized the local road budget through the transfer of monies from the General Fund and/or Major Road Fund. This approach is dependent on financial wherewithal, and in the current fiscal environment, is becoming less common.

One issue related to the inadequacy of Act 51 funding is simply the slow growth in year-to-year allocations. As seen in Exhibit 13, Act 51 dollars to Rochester Hills have been increasing between 1% to 5% over the prior six years - an amount insufficient to keep pace with increasing maintenance needs and costs.

Exhibit 13

Historic Act 51 Funding for Local Roads



Source: City of Rochester Hills

Secondly, a large portion of Rochester Hills local road budget is used to satisfy ongoing bond requirements; $730,036 is budgeted for this purpose in FY 2003-04. This is equal to approximately 60% of the Local Road Act 51 allocation for the year – leaving limited funds for actual maintenance activities.

In conclusion, relying exclusively on Act 51 dollars for local road funding is not a viable option for Rochester Hills. As discussed in Section III, these monies will be insufficient to balance the ongoing Local Road Fund budget, let alone the $58 million needed for reconstruction and pre-emptive repair.

The Act 51 allocation does serve as a beginning point for local streets funding. But other sources must also be identified and utilized.

MAJOR ROAD FUND SUBSIDY

The City of Rochester Hills receives Act 51 State revenue sharing for two road categories, including:

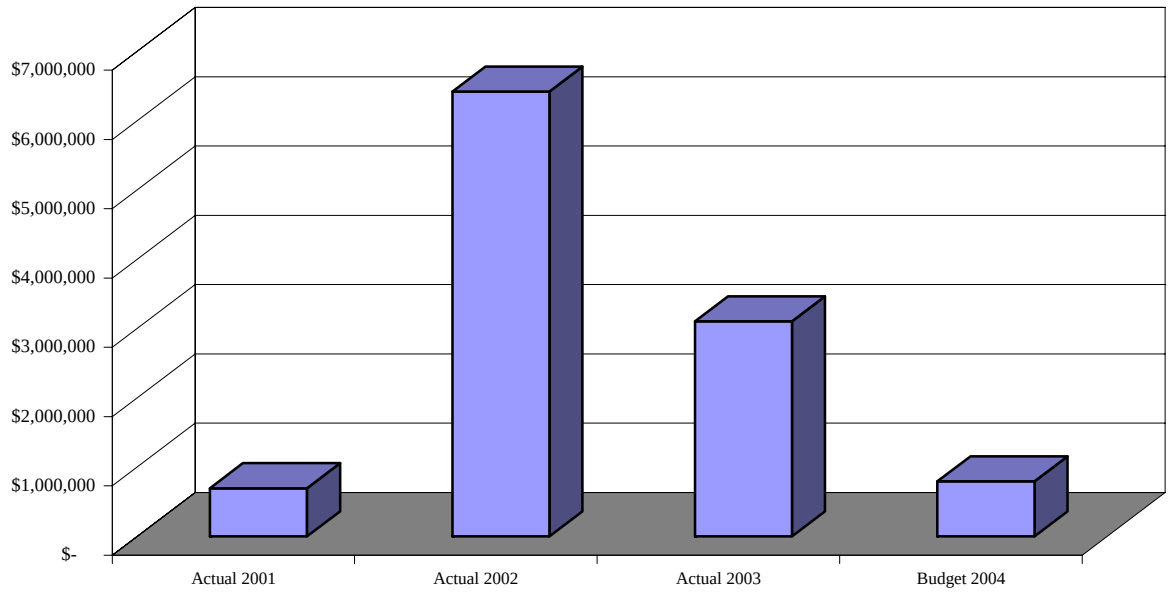
- Local roads - the subject of this study
- Major roads - the primary collector and arterial roads that are under the City's jurisdiction

Under State law, the recipients of Act 51 monies have the option of utilizing some of the Major Road Fund allocation for local roads operation. Traditionally, this "transfer" of funds has been limited to 25% of the annual allocation - an amount that has been increased through recent legislation.

Historically, the City of Rochester Hills has made an annual "major to local" transfer in an effort to increase funding for neighborhood streets maintenance and repair. As seen in Exhibit 14, these transfers accounted for more than $9.5 million in financial subsidy to the Local Road Fund in fiscal years 2002 and 2003.

Exhibit 14

Major Road Fund Transfer into Local Road Fund



Source: City of Rochester Hills 2004 Budget and 2003 Audited Year-end Numbers

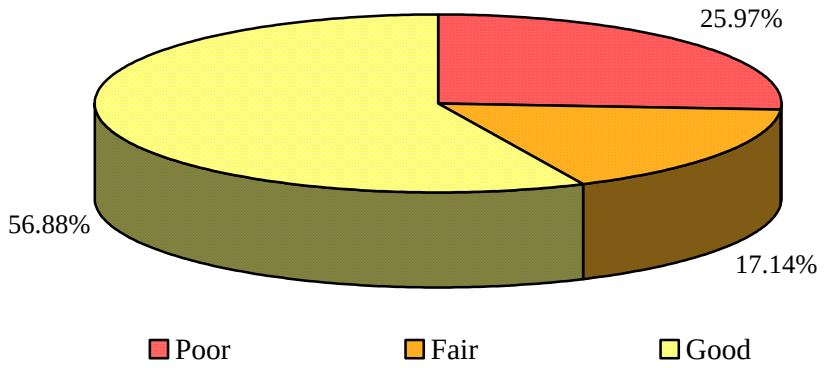
However, as seen in the exhibit, the amount of subsidy was reduced to a budgeted amount of approximately $800,000 in the current fiscal year. The City is also strongly considering an end to this subsidy in 2005.

The reason is simply the mounting needs in the major road system. The Major Road Fund currently enjoys financial health. However, as seen in the following Exhibit 15, an estimated 26% of the City's major road inventory is categorized in "poor" condition.

Exhibit 15

Current Major Road Conditions

(Based on 2004 PMS Data)



Source: City of Rochester Hills engineering staff

The City is actively seeking to remedy this situation through an aggressive effort to secure Federal and State funds for road construction. This effort has been successful to a limited degree but has also required a significant commitment in City matching funds. As seen in Exhibit 16, these project commitments will

more than deplete the Major Road Fund fund balance in coming years and draw heavily on future revenue streams. In this situation, the Major Road Fund will be hard pressed to maintain its current service levels, let alone subsidize local road operations.

Exhibit 16

Major Road Fund

Current Fund Balance	$	12,681,996* based on 2003 year end
Committed for Projects		
2004	$	3,340,000
2005	$	4,079,000
2006	$	4,685,417
2007	$	1,793,150
2008	$	5,662,125
2009	$	2,826,300
	$	22,385,992

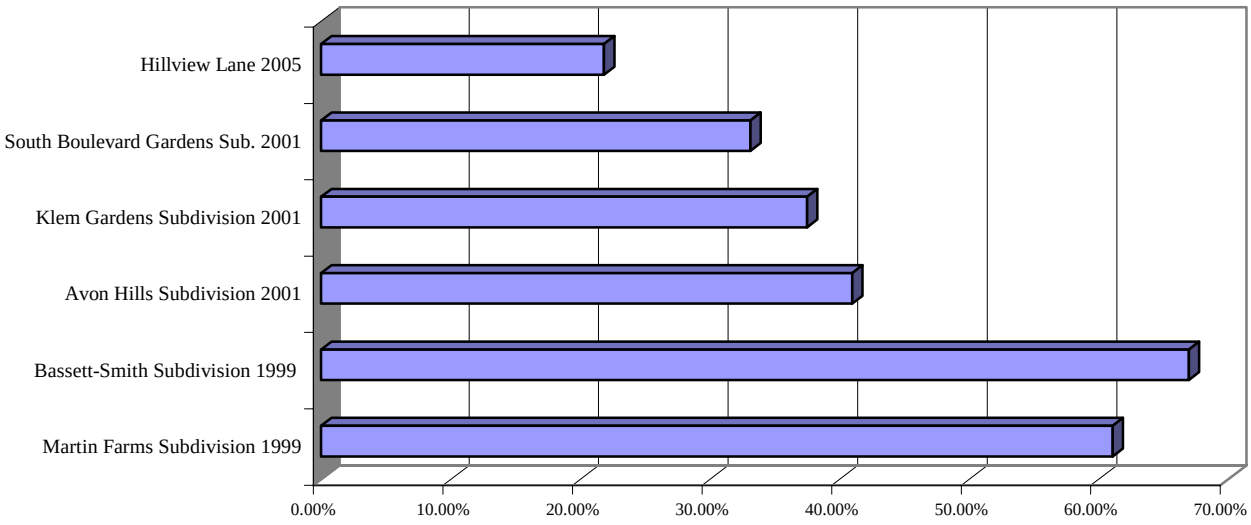
SPECIAL ASSESSMENT DISTRICTS (SAD)

Historically, Rochester Hills has created Special Assessment Districts (SADs) as a method of upgrading from gravel to paved surface. The funding responsibility for SADs was shared between the City and property-owner. The City would "cap" the portion to be paid by the property-owner - historically this cap was set at $4,000.

As seen in Exhibit 17, the City currently has six SADs (one of which still requires final approval). The property-owner's share is capped at $4,000, and the City's share of the total projects has increased with new, more recent SADs. The City has recently increased the property owners cap to $4,770, but there have been no SADs initiated with this new cap.

Exhibit 17

Percentage of SADs Paid by Residents



Source: City of Rochester Hills engineering staff

Despite the potential cost advantage to the public, SADs, as a road funding approach, has not been particularly popular among City property-owners. Apparently many SADs have been initiated by property-owners but not supported by the majority in a proposed district. In this situation, the road upgrade cannot go forward. For this reason, and simply because of the City's lessening ability to support these special projects, the City is not encouraging continued funding for the SADs option.

Presuming that SADs was fairly well supported, this approach would be, at best, a piecemeal road upgrade strategy. More specifically:

- SADs have financial implications. City residents pay a portion, but a significant cost burden is still incurred. In the current environment, the extra costs associated with SADs would be difficult for the City to absorb.

- SADs do not lend itself to an overall planned road reconstruction program. Project initiation is at the whim of the property-owners in a particular area, and, as such, the SADs approach does not allow the City to proceed with a comprehensive program of prioritization and repair.

FEDERAL AND STATE FUNDING

As discussed, State funding (i.e. Act 51) provides ongoing revenues for the City's Local Road Fund. Ideally, there would be other sources from which to draw earmarked, grant-specific funding for local road construction. However, that is not the case. Federal and State allotments for local streets are simply not available.

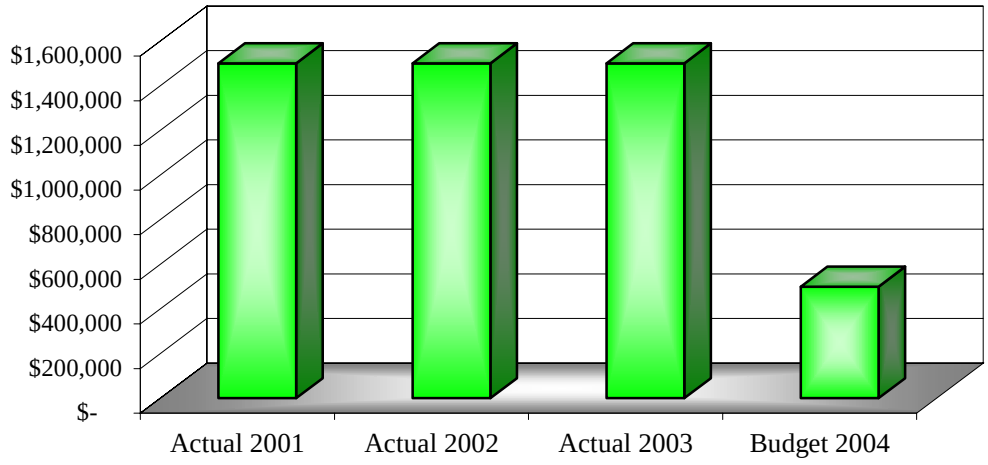
Some grant funding is available for major road projects, though many of these offerings are highly competitive. As discussed, the City is currently securing matching funds for a number of future major streets projects. However, due to the requirement for a City match (as seen in Exhibit 16), these projects will serve to lessen, not increase the Major Road Fund's ability to assist in local road funding.

GENERAL FUND SUBSIDY

As discussed in Section II, the City has historically subsidized the Local Road Fund. As seen in Exhibit 18, the amount of General Fund monies transferred to the Local Road Fund has been extensive in the past; but has been significantly curtailed in the current fiscal year. Facing the prospect of ongoing operating deficits (such as those incurred or budgeted in the last two years) the City has indicated that the subsidy may be entirely eliminated in 2005.

Exhibit 18

General Fund Transfer into Local Roads



Source: City of Rochester Hills 2004 Budget and 2003 Audited Year-end Line Item Detail

The elimination of the General Fund Subsidy will have a profound impact on the already worsening health of the Local Road Fund, particularly in combination with the elimination of the Major Road Fund subsidy. This impact can be seen in the following 2004 budget numbers:

- 2004 Local Road Fund Operating Deficit as budgeted: ($1,892,555)
- Local Road Fund Deficit without planned G/F subsidy: ($2,392,555)
- Local Road Fund Deficit without G/F subsidy and without planned Major Road Fund subsidy: ($3,187,122)

As previously discussed, the inability of the General Fund to continue local streets subsidies is not a result of fiscal mismanagement. Simply put, Rochester Hills' General Fund generates a finite amount of dollars. The City's 2003 total operating levy of 9.3681 is among the lowest in southeastern Michigan. Additionally, as seen in Exhibits 19 and 20, the City's tax levy was the lowest levy among other similar-

sized Detroit area cities (i.e. 60,000 - 80,000 population) in 2002 (the latest State Tax Commission summary available).

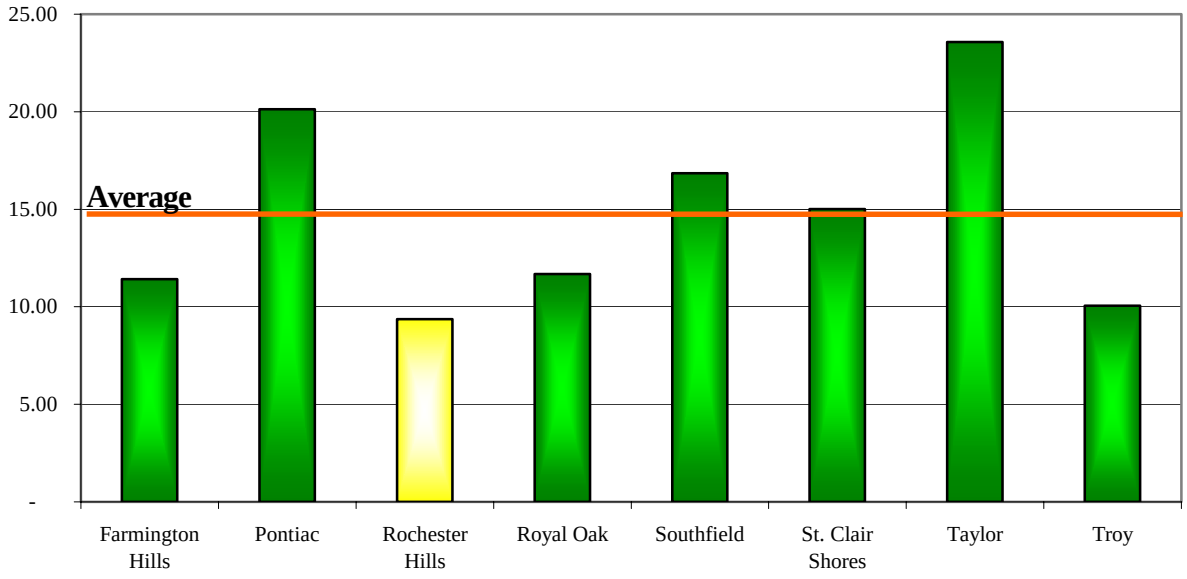
Exhibit 19

City	Population	2002Total City Tax Levy
Farmington Hills	82,111	11.41
Pontiac	66,337	20.12
Rochester Hills	68,825	9.37
Royal Oak	60,062	11.68
Southfield	78,296	16.85
St. Clair Shores	63,096	15.01
Taylor	65,868	23.58
Troy	80,959	10.05
Average	70,694	14.76

Source: State of Michigan, State Tax Commission

Exhibit 20

Southeast Michigan Cities Total Millage Rate - 2002



Source: State of Michigan, State Tax Commission

Related to this, the funding of the local streets system is not a one-time phenomenon - a multi-year commitment will be required. Barring any new additional tax levies, the growth rate of the General Fund will incrementally decline, making subsidization of other activity areas like local roads extremely difficult.

The reason for this is simply the impending "built out" status of the community. Lacking new construction (and corresponding increases in tax revenues) the City's revenue generating capability is, and

will be, significantly diminished. Maturing communities like Rochester Hills are particularly impacted by the Headlee Amendment and Proposal A - two constitutional devices for limiting property tax growth. Moreover, continued reductions in State revenue sharing are likely, and will impact the City's ability to fund operations beyond those that comprise the General Fund.

DEDICATED MILLAGE OF LOCAL STREETS

As previously mentioned, a dedicated millage for local streets is a fairly common funding practice for Michigan's municipalities. Related, MML reports that an estimated 140 municipalities currently levy this tax.

As seen in Exhibit 19 above, Rochester Hills, property-owners have historically enjoyed low rates of taxation. Ongoing additions to the tax base have provided the means to accomplish this; a condition that is now ending as the community becomes full.

In the previous pages, we have listed and described all potential funding sources for the local streets system. Among these, only the Act 51 allocation from the State of Michigan can be seen as a viable and reliable revenue source. Neither the Major Road Fund or General Fund can afford continued subsidization, and intergovernmental assistance is simply not available.

In this situation, we have concluded that a dedicated local streets millage is the only alternative if the City of Rochester Hills is to maintain a high level of road quality and maintenance practices. Ideally, this millage would be sufficient to accomplish the following:

- Supplement the Act 51 revenues, and thus assure adequate funding for ongoing road maintenance.

- Fund a comprehensive road reconstruction program that will bring all currently substandard neighborhood streets up to a satisfactory level.

- Provide sufficient funding for a pre-emptive road repair program designed to minimize long-term reconstruction costs by extending the life of the roads with less costly preventive repair strategies.

To determine the financial requirements for such a millage, we have developed five and ten year financial forecasts for the Local Road Fund. This analysis, contained in Appendix A, evaluates and estimates the following:

- Local Road Fund "bottom line" results for the period 2005-2014 - for maintenance only.

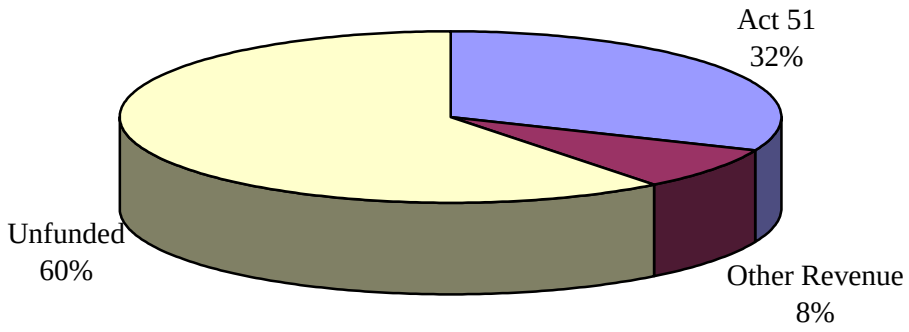
- Bottom-line results if all necessary construction was performed in accordance with the cost estimates contained in Exhibits 10 and 11.

- The amount of millage required to fund both local roads operating cost and necessary construction.

In regard to maintenance operations only, (without construction), we have estimated that the Local Road Fund will realize a significant annual operating deficit in each fiscal year for the period 2005-2014; totaling just over $45 million or roughly 60% of the budget. This financial outcome is illustrated (as an average of 2005 to 2014) in Exhibit 21 below.

Exhibit 21

Funding Sources for Local Road Operating Needs



While this deficit is significant, it accounts for none of the construction costs that are required to maintain the road system. If these costs, (summarized in Exhibits 10 and 11) are included, the true needs of the Local Road Fund can be estimated at more than $103 million over ten years. Net of all other revenues, we have estimated that one or the other of the following ad valorem property tax levies would be necessary to meet the needs of the local road system, including maintenance and reconstruction.

- Amount required over 5 years: 4.4743 mills
- (or) amount required over 10 years: 2.9213 mills

In regard to tax equity, a millage spread over a ten-year period would appear to be the better choice. Specifically:

- Property-ownership will change in many cases. A ten-year millage will assure greater uniformity between those who pay, and those who benefit from either road use, or other benefits such as enhanced property values.

- A millage spread over ten years will allow sufficient time to implement and accomplish all facets of the comprehensive road program. The number of substandard roads that need reconstruction is simply too massive to remedy in a 5 year period.

SUMMARY OF SECTION IV

In summary, the Local Road Fund has only one reliable revenue source going forward: the State's annual Act 51 Local Road Fund allocation. This revenue source is wholly inadequate to meet the future maintenance and/or construction needs of Rochester Hills.

The General Fund and Major Road Fund have traditionally subsidized the Local Road Fund budget, but are no longer financially able to afford the subsidy. Moreover, the reconstructive needs of the local streets system are mounting, threatening the quality of the street infrastructure and potentially, quality-of-life and property values.

In this situation, dedicated local streets funding is sorely needed. A dedicated millage for neighborhood streets appears to be the only viable funding option. Based on our financial analysis, contained in Appendix A, the maintenance and construction needs of the local streets system could be accomplished through either of the following:

- A five-year dedicated local streets millage of 4.4743
- (or) a ten-year dedicated local streets millage of 2.9213.

SECTION V

OUTLINE FOR A PUBLIC EDUCATION STRATEGY

SECTION V

OUTLINE FOR A PUBLIC EDUCATION STRATEGY

As discussed in the previous section, the City of Rochester Hills must secure dedicated funding for maintenance and reconstruction of the local roads system. In the absence of this funding, the City can anticipate a continued deterioration of neighborhood streets, and the potential for drastic cuts in routine streets maintenance. Faced with this prospect, we are suggesting that the City seek a dedicated local streets millage, estimated at 2.9106 mills over ten years.

While millage requests are never popular, they are sometimes necessary to assure the continuation of high quality services or infrastructure. Unfortunately, in many cases, the rationale for a millage, or related necessity of the funds, is not clearly articulated. In these cases, property-owners will generally vote no.

Consequently it is critical that the City of Rochester Hills fully inform its citizens of the facts surrounding the local roads issue, prior to requesting local streets dedicated funding. As well, the City must clearly illustrate the value to be gleaned.

The value of having a sound, well-maintained local street system is apparent to most everyone. Ride quality and appearance are both enhanced in a well-maintained system, as is pedestrian and driver safety. Moreover, communities with superior public services and amenities generally enjoy superior home values. While this cannot necessarily be quantified for roads, it would appear to be a logical conclusion that an attractive, well-maintained local street adds value to the associated properties. Some evidence of this is seen in Exhibit 22.

Exhibit 22 – ***Millage-related Information***

City	Voted Millage	Year	Focus of Millage	Next Years Increase in Taxable Value
Lincoln Park	2.9	2000	Streets	12.00%
Southgate	2	2000	Streets	8.90%
Utica	1.3	2000	Streets	7.30%
St. Clair Shores	2	1999	Infrastructure	14.00%
Birmingham	0.7	2000	Infrastructure	14.00%

Source: Applicable Cities

Citizens should also be full informed of the potential ramifications of not acting promptly to resolve the local streets issue. The Local Road Fund deficits that we have estimated in this report may vary somewhat in amount, but will definitely occur without a new revenue source and inflow. The construction backlog noted in the report is real and growing. Related, in performing public education, the

City must also assure that citizens fully understand the needs that exist, and the consequences of failing to act.

Summarily, the City should recognize that the public education process should be balanced, comprehensive and as far-reaching as possible, within existing time constraints. Lacking this level of effort, the City will be challenged to convince property-owners to pay additional taxes for a poorly-defined purpose.

In developing the public education process the City should consider the following specific steps:

TASK 1: APPOINT A PROJECT MANAGER

To date, the City has used a committee structure to evaluate the issue of local roads needs and funding. This Community Development Viability (CDV) Committee has now concurred on the need to seek a local streets millage.

At the CDV committee meeting of May 27, a project manager was appointed from the City's administrative staff. This individual should have responsibility for directing and coordinating all public education efforts. However, the public education process cannot be a one-person effort. Volunteers must be identified and coordinated, staff time must be allocated and neighborhood groups must be mobilized to assist. Coordination of these, and other resources is the important, and necessary, responsibility of the project manager.

TASK 2: CLEARLY DEFINE LEGAL PARAMETERS

Public entities are permitted to provide public education regarding the specifics of a millage request. However, there are legal parameters determining the distinction between public education and "proactive campaigning", such as those cited in PA 388 of 1976.

Consequently, it is necessary for the City to secure legal assistance and assure the following:

- An understanding of the general legal limitations of the public education process
- Pre-emptive legal review of materials and planned activities to assure compliance.
- Integration of legal parameters into all phases of the public education process

TASK 3: COMMISSION A COMMUNITY ATTITUDINAL SURVEY (OPTIONAL)

Many public education processes begin with a community survey intended to determine the underlying community sentiment regarding the target issue. In the case of local roads, this survey would be intended to determine community attitudes regarding such issues as:

- The public perception of road condition
- The perception of the City's financial wherewithal
- The options that the citizens see as available to address the problem

If the survey is conducted properly (i.e. statistically significant sample) the feedback would allow the City to develop, and deliver a more meaningful public education package. Additionally, the survey could inquire where residents get their news, allowing the City to concentrate public education efforts most efficiently.

In conducting project research, we identified a number of survey research firms that provide this service. The timeline to conduct such a survey was estimated at 4-6 weeks with estimated costs ranging from $6,000 - $8,000.

TASK 4: DEVELOP A SPECIFIC PUBLIC EDUCATION MESSAGE

The development of a concise and meaningful public education message should be a next step. The community attitudinal assessment would be extremely useful to this task, by allowing the City of develop the precise message to address the underlying community issues and/or concerns.

Whether a survey is completed or not, a message should still be developed, to include:

- A clear definition of the issue and objective (e.g. assure top quality residential streets into the future)

- Specification of benefits to be derived (e.g. neighborhood quality, property values, safe streets)

TASK 5: DEVELOP AN INITIAL PUBLIC EDUCATION KIT

As a first step in the implementation of the public education process, an informational kit should be developed. The kit should include:

- A 3-4 page summary of facts
- A brochure summarizing the key issues
- A slide presentation
- A press kit
- Form letters for dissemination to civic organizations, homeowners associations and others

The contents of this report can be used to create most of the elements within the informational kit. As an example, the study's executive summary section may serve as the basis for a summary of facts, or the Power Point presentation used by our project team during the study's focus group session may have continuing utility as an educational slide presentation.

TASK 6: DEVELOP A SPECIFIC PUBLIC EDUCATION ACTIVITIES PLAN

The specifics of a public education initiative will become clearer as the previous tasks are accomplished. Having completed these tasks, the project manager (under the Committee's direction) should focus on the creation of a public education activities plan. This should first include:

- Identification and organization of volunteer groups and supporters

- Identification of key civic organizations and related contacts

- Identification of city resources and staff that will be utilized (within legal parameters)

- Identification of key media outlets

Having accomplished the above, the project manager must determine specific tasks to be performed within the confines of structured work plans, possibly utilizing task forces. Specific tasks will likely include:

- Public presentations regarding the roads issue

- Dissemination of literature and educational kits to citizens and groups

- Public Access programming

- Newspaper and newsletter articles

- Press conferences

- Solicitation of endorsements from community groups and individuals

- Creation and display of flyers and posters

- One-on-one discussions with community members and leaders

- One-on-one phone calls

- Public education meetings.

The public education initiative must be structured to conclude prior to the November 4, 2004 election date. However, some initiatives, such as education of the absentee ballot voter group must be timed for earlier completion. These and other timing issues must also be determined by the project manager, subject to the input and direction of the CDV Committee.

To structure the public education process, the project manager should incorporate the above activities into a concise plan that specifies:

- Activities
- Objectives of the activities
- Responsibilities
- Timelines.

An example is included on the following Exhibit 23. Additionally, the tasks should them be slotted into a public education timeline that coincides with the election. An example is included in Exhibit 24.

Lastly, it should be noted that coordination of the public education effort may pose a daunting task for the project manager, given his existing job duties and responsibilities. Related, professional assistance may be both necessary and advantageous.

APPENDIX A

FUTURE FINANCIAL FORECAST FOR THE ROCHESTER HILLS LOCAL ROAD FUND

APPENDIX A

ASSUMPTIONS USED IN DEVELOPING A FINANCIAL PROJECTION FOR THE LOCAL ROAD FUND

In the following pages (i.e. Schedules 1-7), we have developed five- and ten-year future financial forecasts for the Local Road Fund. These forecasts are used to estimate the following financial outcomes:

- The estimated financial condition of the Local Road Fund in each future fiscal year under the current operating scenario.

- The estimated financial condition of the Local Road Fund in each future fiscal year if the City were to undertake a road rehabilitation program as specified in Exhibits 10 and 11 (i.e. either five- or ten-year duration, see body of the report).

- The millage amount required to fund:

  - Operating deficits only – either five- or ten-year

  - Operating deficits and a five-year schedule for reconstructive upgrade of the road system

  - Operating deficits and a ten-year schedule for reconstructive upgrade of the road system.

The following assumptions form the basics for the five-year and ten-year future financial forecasts for the Local Road Fund.

GENERAL ASSUMPTIONS

1. Historic data for fiscal years 2001-2003 have been compiled consistent with the City's audited financial reports.

2. Fiscal year 2004 data are the City's budget estimates.

3. Data have been collected, and financial estimates have been developed utilizing a number of expert sources, both internal and external. Internal sources have included the Finance Department, Public Service Department and members of City Administration. External sources include various State of Michigan Departments including Treasury, Transportation and Management and Budget, as well as the United States Congressional Budget Office (CBO).

4. Annual inflation factors through 2014 are based on estimates obtained from the CBO. CBO estimates for future years are as follows:

   - 2005: 1.7%

   - 2006: 2.0%

   - 2007-2014: 2.2% per annum

5. Full-time staffing and service levels are assumed to remain relatively constant for the period covered by the financial forecast.

6. It is assumed that the Local Road Fund will not receive any interfund transfers (i.e. subsidies) from the General Fund or Major Road Fund for the period covered by the financial forecasts.

EXPLANATION OF SCHEDULES AND/OR RELATED ASSUMPTIONS

The interaction of the various spreadsheets that comprise the financial model is illustrated in Table A. A description of the specific Schedule pages is as follows.

Schedules 1 and 2

Schedules 1 and 2 are the summary schedules of estimated financial requirements for the Local Road Fund for a future ten-year, or five-year period respectively. Related to this, the financial results presented in the schedules are generated in other secondary schedules.

Schedules 1 and 2 also provide an estimated annual millage amount that would be required to:

- Fund a complete road reconstruction program over five- or ten-years
- Assure sufficient operating revenue to sustain routine services at current levels
- Fund a combination of the above (i.e. operations net of other revenues, and a road reconstruction program) over five- or ten-years.

In regard to total millage requirements, we have attempted to be as specific as possible in defining the specific ongoing millage amount that would be required. Accordingly, the required funding, and millage amount is averaged over the multi-year period following consideration of, and reduction for, the Headlee Amendment's annual impact.

Schedule 3

Schedule 3 summarizes the annual amounts required to fund only the City's construction and rehabilitation program for the Local Road system, over a five- year or ten-year period. Essentially the Schedule adds an inflationary factor (i.e. the CBO assumed rate) to the City's five-year and ten-year Local Road rehabilitation plan (i.e. Exhibits 10 and 11), and then calculates a required millage. This information is then linked to Schedules 1 and 2 for further calculation as discussed above.

Schedule 4

Schedule 4 summarizes the financial requirements of the Local Road Fund for the period fiscal year 2005-2014. Related:

- Schedule 4 is a summary schedule that draws information from the following schedules.
- An operational deficit is estimated for each future fiscal year.

- The deficits are used to calculate annual estimates millage amounts that would be required to eliminate the deficits and fund operations at current levels.

- The annual millage requirements are linked to Schedules 1 and 2 in combination with the Schedule 3 data to calculate the full required millage amount.

Schedule 5

Schedule 5 lists the primary assumptions used in developing the financial model. Schedule 5 can be used as a Master Assumption page to quickly and easily change assumptions to the model (and outcomes) without performing line-item detail changes in supporting Schedules 6-8.

The assumptions illustrated in Schedule 5 have been developed from information obtained from sources listed in the preceding general assumptions subsection.

Schedule 6

Schedule 6 is the line-item detail for the Local Road Fund. As such, this Schedule forms the basis for the summation of Local Road Fund financial requirements contained in Schedule 4. As seen in Schedules 6, the assumption is used to forecast each line-item is illustrated in the far right of the pages. In some cases, these assumptions are drawn from Schedule 5. These are identified by the particular reference/title used in Schedule 5 (e.g. CBO inflation rate assumption etc.). Other line items are driven by a specific assumption. In this case, the assumption is specified, and should be self-explanatory.

One exception is the Total Compensation line item. This line-item, as presented, includes all employee benefits and wages. At the City's request, we have calculated our presumed increase in the compensation on a confidential basis, so as not to compromise the City's position in future labor negotiations.

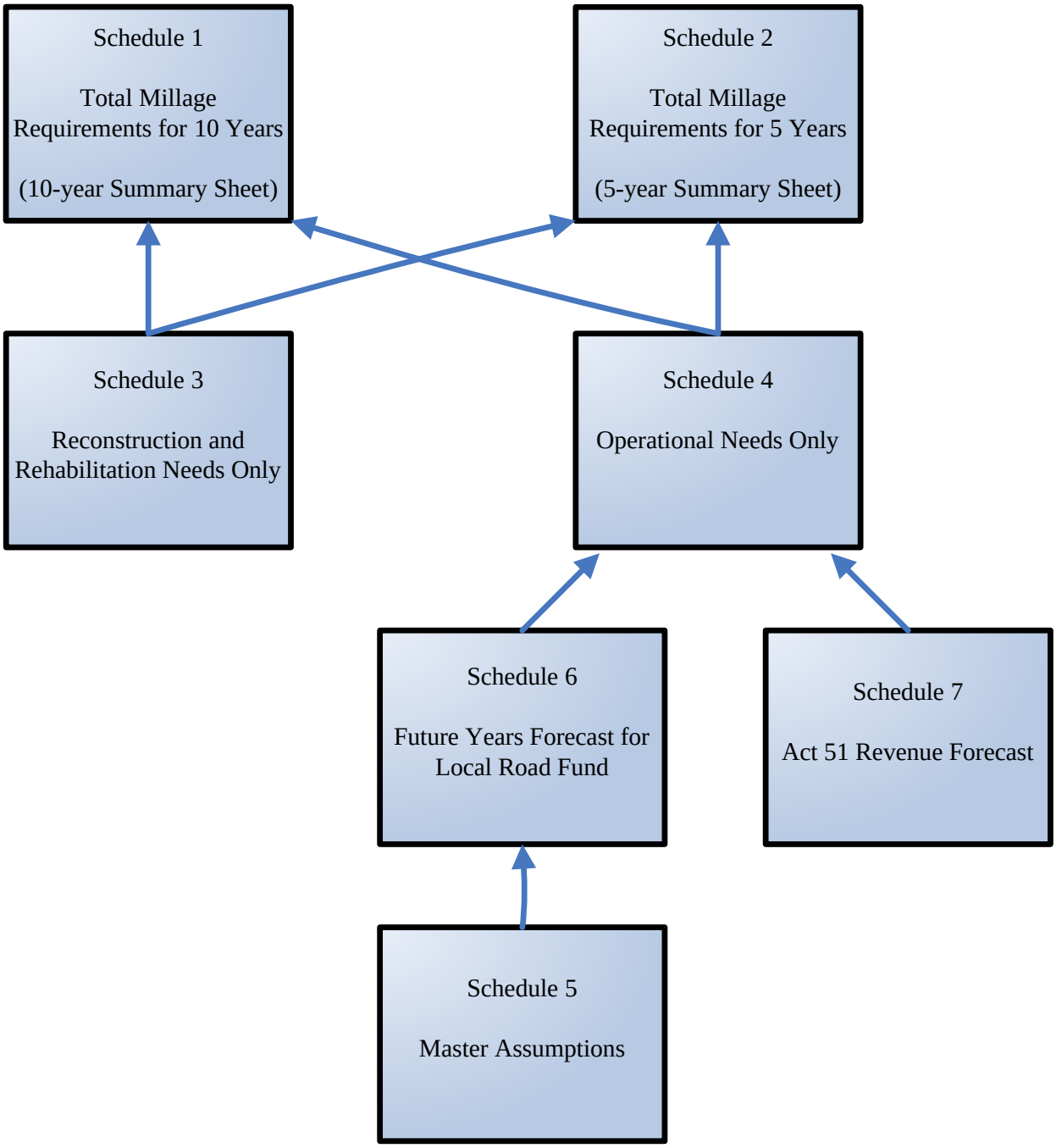
The financial forecast presented in Schedule 6 forms the basis for the summary forecasts contained in Schedule 4.

Schedule 7

Schedule 7 estimated future years' revenues derived from Act 51 funding for the Local Road Fund. Related assumptions are listed with the Department of Transportation Act 51 Funding Formula used as a starting point.

The results of the Schedule 7 forecast, are used in conjunction with the Schedule 6 line-item revenue forecast to specify the revenues from available revenue sources line-item contained in Schedule 4.

Table A
Illustrations of Financial Model Interactions



Schedule 1
City of Rochester Hills
Ten-year Estimation of Revenues, Expenses and Associated Millage Requirements for Local Road Fund

Fiscal Year:	Actual 2001	Actual 2002	Actual 2003	Budget 2004	Estimated 2005	Estimated 2006	Estimated 2007	Estimated 2008	Estimated 2009	Estimated 2010	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014
Local Road Fund														
REVENUES														
Revenues from Local Roads Budget	6,917,433	9,517,146	6,100,752	2,776,597	1,491,532	1,523,971	1,564,695	1,610,167	1,661,629	1,711,976	1,849,504	1,919,416	1,960,012	2,051,193
Revenue from Combined Millage	-	-	-	-	9,438,045	9,810,848	10,174,094	10,525,609	10,889,269	11,238,542	11,599,019	11,971,057	12,355,029	12,751,316
Total Revenues	6,917,433	9,517,146	6,100,752	2,776,597	10,929,577	11,334,819	11,738,789	12,135,776	12,550,898	12,950,518	13,448,523	13,890,473	14,315,041	14,802,509
EXPENDITURES														
Transfer Out	3,097,332	5,032,863	762,060	768,836	764,061	798,748	856,173	860,567	888,042	862,743	862,743	836,443	859,643	905,455
Construction	113,719	809,704	2,207,307	306,870	509,430	532,518	556,801	583,053	611,506	642,429	676,124	712,935	753,255	797,529
Routine Maintenance	1,387,594	1,373,321	1,525,715	1,787,985	1,850,974	1,921,555	1,999,457	2,083,422	2,174,176	2,272,551	2,379,489	2,496,067	2,623,512	2,763,224
Traffic Services	374,003	432,523	518,198	546,448	570,942	598,246	628,326	661,160	697,099	736,542	779,944	827,822	880,770	939,465
Winter Maintenance	462,572	395,957	630,157	673,800	697,759	724,642	754,347	786,401	821,092	858,744	899,728	944,465	993,437	1,047,194
Administration	814,974	779,518	724,448	585,213	810,980	831,259	854,576	880,373	907,625	936,488	967,137	999,773	1,034,626	1,071,955
Construction Budgeted (see Const. Mill Need page)	-	-	-	-	5,965,266	6,073,234	6,202,339	6,341,422	6,473,537	6,622,827	6,767,124	6,917,437	7,068,153	6,889,307
Total Expenditures	6,250,194	8,823,886	6,367,885	4,669,152	11,169,411	11,480,202	11,852,019	12,196,399	12,573,079	12,932,324	13,332,289	13,734,941	14,213,396	14,414,130
Revenues Over (Under) Expenditures	667,239	693,260	(267,134)	(1,892,555)	(239,834)	(145,383)	(113,229)	(60,623)	(22,181)	18,195	116,234	155,531	101,645	388,380
Beginning Fund Balance			4,112,892	3,845,759	1,953,204	1,713,370	1,567,987	1,454,758	1,394,135	1,371,954	1,390,148	1,506,382	1,661,913	1,763,559
Ending Fund Balance		4,112,892	3,845,759	1,953,204	1,713,370	1,567,987	1,454,758	1,394,135	1,371,954	1,390,148	1,506,382	1,661,913	1,763,559	2,151,939

ASSUMPTIONS					Estimated 2005	Estimated 2006	Estimated 2007	Estimated 2008	Estimated 2009	Estimated 2010	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014
TV ASSUMPTIONS (from Assumptions Page)														
Total Taxable Value					3,230,824,070	3,392,365,274	3,553,502,624	3,713,410,242	3,880,513,703	4,045,435,535	4,217,366,546	4,396,604,624	4,583,460,320	4,778,257,384
MILLAGE ASSUMPTIONS														
Revenue Shortage in Dollars					3,712,612	3,882,997	4,084,985	4,244,810	4,437,913	4,597,521	4,715,660	4,898,089	5,185,230	5,473,629
Operating Millage Needed to Cover Shortage					1.1491	1.1446	1.1496	1.1431	1.1436	1.1365	1.1182	1.1141	1.1313	1.1455
Construction Dollars Needed					5,965,266	6,073,234	6,202,339	6,341,422	6,473,537	6,622,827	6,767,124	6,917,437	7,068,153	6,889,307
Construction Millage Needed to Cover Need					1.8464	1.7903	1.7454	1.7077	1.6682	1.6371	1.6046	1.5734	1.5421	1.4418
Total Combined Millage Required					2.9955	2.9349	2.8950	2.8508	2.8119	2.7736	2.7227	2.6874	2.6734	2.5873
Operating Millage Needed (based on average)	1.1376													
Construction Millage Needed (based on average)	1.6557													
Total Combined Millage Required (based on average)	2.7932													
Original Millage Requested to Meet Average Need	**2.9213**		Avg	2.7932										
Millage Assessed after Headlee Rollback					2.9213	2.8920	2.8631	2.8345	2.8061	2.7781	2.7503	2.7228	2.6956	2.6686

Schedule 2
City of Rochester Hills
Five-year Estimation of Revenues, Expenses and Associated Millage Requirements for Local Road Fund

Fiscal Year:	Actual 2001	Actual 2002	Actual 2003	Budget 2004	Estimated 2005	Estimated 2006	Estimated 2007	Estimated 2008	Estimated 2009
Local Road Fund									
REVENUES									
Revenues from Local Roads Budget	6,917,433	9,517,146	6,100,752	2,776,597	1,491,532	1,523,971	1,564,695	1,610,167	1,661,629
Revenue from Combined Millage	-	-	-	-	14,455,676	15,026,675	15,583,038	16,121,432	16,678,427
Total Revenues	6,917,433	9,517,146	6,100,752	2,776,597	15,947,209	16,550,647	17,147,733	17,731,599	18,340,056
EXPENDITURES									
Transfer Out	3,097,332	5,032,863	762,060	768,836	764,061	798,748	856,173	860,567	888,042
Construction	113,719	809,704	2,207,307	306,870	509,430	532,518	556,801	583,053	611,506
Routine Maintenance	1,387,594	1,373,321	1,525,715	1,787,985	1,850,974	1,921,555	1,999,457	2,083,422	2,174,176
Traffic Services	374,003	432,523	518,198	546,448	570,942	598,246	628,326	661,160	697,099
Winter Maintenance	462,572	395,957	630,157	673,800	697,759	724,642	754,347	786,401	821,092
Administration	814,974	779,518	724,448	585,213	810,980	831,259	854,576	880,373	907,625
Construction Budgeted (see Const. Mill Need page)	-	-	-	-	11,022,775	11,244,490	11,497,019	11,739,427	11,933,147
Total Expenditures	6,250,194	8,823,886	6,367,885	4,669,152	16,226,920	16,651,458	17,146,698	17,594,404	18,032,689
Revenues Over (Under) Expenditures	667,239	693,260	(267,134)	(1,892,555)	(279,711)	(100,811)	1,035	137,195	307,368
Beginning Fund Balance			4,112,892	3,845,759	1,953,204	1,673,493	1,572,682	1,573,716	1,710,912
Ending Fund Balance		4,112,892	3,845,759	1,953,204	1,673,493	1,572,682	1,573,716	1,710,912	2,018,279

ASSUMPTIONS					Estimated 2005	Estimated 2006	Estimated 2007	Estimated 2008	Estimated 2009
TV ASSUMPTIONS (from Assumptions Page)									
Total Taxable Value					3,230,824,070	3,392,365,274	3,553,502,624	3,713,410,242	3,880,513,703
MILLAGE ASSUMPTIONS									
Revenue Shortage in Dollars					3,712,612	3,882,997	4,084,985	4,244,810	4,437,913
Operating Millage Needed to Cover Shortage					1.1491	1.1446	1.1496	1.1431	1.1436
Construction Dollars Needed					11,022,775	11,244,490	11,497,019	11,739,427	11,933,147
Construction Millage Needed to Cover Need					3.4118	3.3146	3.2354	3.1614	3.0751
Total Combined Millage Required					4.5609	4.4593	4.3850	4.3045	4.2188
Operating Millage Needed (based on average)	1.1460								
Construction Millage Needed (based on average)	3.2397								
Total Combined Millage Required (based on average)	4.3857								
Original Millage Requested to Meet Average Need	**4.4743**		Avg	4.3857					
Millage Assessed after Headlee Rollback					4.4743	4.4296	4.3853	4.3414	4.2980

Schedule 3
City of Rochester Hills
Summary of Required 5 and 10 Year Millage Amounts for Construction and Rehabilitation ONLY of the Local Road System from 2005 to 2014

Fiscal Year:	1 **2005**	2 **2006**	3 **2007**	4 **2008**	5 **2009**	6 **2010**	7 **2011**	8 **2012**	9 **2013**	10 **2014**
Scenario 1 - Five Year										
Base Amount	$ 10,838,520	$ 10,839,734	$ 10,844,592	$ 10,834,877	$ 10,776,586					
Inflationary Increase	184,255	404,756	652,427	904,550	1,156,562					
Total	**$ 11,022,775**	**$ 11,244,490**	**$ 11,497,019**	**$ 11,739,427**	**$ 11,933,147**					
Millage Needed	3.41	3.31	3.24	3.16	3.08					
Average Millage Needed 3.2397										

Fiscal Year:	1 **2005**	2 **2006**	3 **2007**	4 **2008**	5 **2009**	6 **2010**	7 **2011**	8 **2012**	9 **2013**	10 **2014**
Scenario 2 - Ten Year										
Base Amount	$ 5,865,552	$ 5,854,622	$ 5,850,372	$ 5,852,801	$ 5,846,122	$ 5,852,194	$ 5,850,979	$ 5,852,194	$ 5,850,979	$ 5,580,168
Inflationary Increase	99,714	218,612	351,967	488,621	627,416	770,633	916,145	1,065,243	1,217,174	1,309,139
Total	**$ 5,965,266**	**$ 6,073,234**	**$ 6,202,339**	**$ 6,341,422**	**$ 6,473,537**	**$ 6,622,827**	**$ 6,767,124**	**$ 6,917,437**	**$ 7,068,153**	**$ 6,889,307**
Millage Needed	1.85	1.79	1.75	1.71	1.67	1.64	1.60	1.57	1.54	1.44
Average Millage Needed 1.6557										

Schedule 4
City of Rochester Hills
Assessment of Operational Shortage and Required Millage for the Local Road System from 2001 to 2014

Fiscal Year:	Actual 2001	Actual 2002	Actual 2003	Budget 2004	Estimated 2005	Estimated 2006	Estimated 2007	Estimated 2008	Estimated 2009	Estimated 2010	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014
Local Road Fund														
REVENUES														
Revenues from Local Roads Budget	6,917,433	9,517,146	6,100,752	2,776,597	1,491,532	1,523,971	1,564,695	1,610,167	1,661,629	1,711,976	1,849,504	1,919,416	1,960,012	2,051,193
Total Revenues	6,917,433	9,517,146	6,100,752	2,776,597	1,491,532	1,523,971	1,564,695	1,610,167	1,661,629	1,711,976	1,849,504	1,919,416	1,960,012	2,051,193
Transfer Out	3,097,332	5,032,863	762,060	768,836	764,061	798,748	856,173	860,567	888,042	862,743	862,743	836,443	859,643	905,455
Construction	113,719	809,704	2,207,307	306,870	509,430	532,518	556,801	583,053	611,506	642,429	676,124	712,935	753,255	797,529
Routine Maintenance	1,387,594	1,373,321	1,525,715	1,787,985	1,850,974	1,921,555	1,999,457	2,083,422	2,174,176	2,272,551	2,379,489	2,496,067	2,623,512	2,763,224
Traffic Services	374,003	432,523	518,198	546,448	570,942	598,246	628,326	661,160	697,099	736,542	779,944	827,822	880,770	939,465
Winter Maintenance	462,572	395,957	630,157	673,800	697,759	724,642	754,347	786,401	821,092	858,744	899,728	944,465	993,437	1,047,194
Administration	814,974	779,518	724,448	585,213	810,980	831,259	854,576	880,373	907,625	936,488	967,137	999,773	1,034,626	1,071,955
Total Expenditures	6,250,194	8,823,886	6,367,885	4,669,152	5,204,145	5,406,968	5,649,680	5,854,977	6,099,541	6,309,497	6,565,165	6,817,505	7,145,242	7,524,822
Revenues Over (Under) Expenditures	667,239	693,260	(267,134)	(1,892,555)	(3,712,612)	(3,882,997)	(4,084,985)	(4,244,810)	(4,437,913)	(4,597,521)	(4,715,660)	(4,898,089)	(5,185,230)	(5,473,629)
Revenue needed					3,712,612	3,882,997	4,084,985	4,244,810	4,437,913	4,597,521	4,715,660	4,898,089	5,185,230	5,473,629
Needed Operating Millage					1.1491	1.1446	1.1496	1.1431	1.1436	1.1365	1.1182	1.1141	1.1313	1.1455

Average Millage Need for 5 Years	**1.1460**
Average Millage Need for 10 Years	**1.1376**

Schedule 5
City of Rochester Hills
Assumptions Page
For Local Road Fund Financial Model for 2005 to 2014

Fiscal Year:	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
MODEL-WIDE ASSUMPTIONS										
Population	72,587	73,363	74,148	74,942	75,744	75,744	75,744	75,744	75,744	75,744
CBO Inflation Rate	1.7%	2.0%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
Headlee Rollback	99.25%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
REVENUE ASSUMPTIONS										
% Transfer from Major Roads	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Licenses & Permits	3.0%	3.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%
State Funds - Local Roads (enter % increase or decrease)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Interest & Dividend Earnings	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Interest - SAD - (enter actual amounts)	$ 19,931	$ 17,937	$ 16,144	$ 14,529	$ 13,076	$ 11,769	$ 10,592	$ 9,533	$ 8,579	$ 7,721
SAD - (enter actual amounts)	$ 37,253	$ 46,566	$ 58,207	$ 72,759	$ 90,948	$ 113,686	$ 142,107	$ 177,634	$ 222,042	$ 277,553
Transfer In - General Fund	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous Revenue (enter % increase or decrease)	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Bonds Proceeds (enter actual amount)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfers In - Capital Improvement Fund	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
EXPENSE ASSUMPTIONS										
Transfer Out - Major Roads										
Transfer Out - Local Road Imp. 2001 Bond	$ 192,287.50	$ 189,037.50	$ 235,587.50	$ 230,187.50	$ 224,487.50	$ 268,487.50	$ 260,487.50	$ 252,287.50	$ 268,787.50	$ 284,000.00
Transfer Out - SAD 2001 Bond	$ 123,050.00	$ 120,050.00	$ 117,050.00	$ 114,050.00	$ 111,050.00	$ 108,050.00	$ 130,050.00	$ 125,950.00	$ 121,650.00	$ 142,250.00
Transfer Out - SAD 2002 Bond	$ 346,360.50	$ 366,110.50	$ 385,110.50	$ 403,079.70	$ 444,329.70	$ 433,455.30	$ 472,205.30	$ 458,205.30	$ 469,205.30	$ 479,205.30
Transfer Out - Local Road Imp. 1987 Bond	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfer Out - Local Road Imp. 1988 Bond	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transfer Out - Local Road Imp. 1994 Bond	$ 62,875.00	$ 60,300.00	$ 57,725.00	$ 55,150.00	$ 52,725.00	$ -	$ -	$ -	$ -	$ -
Transfer Out - Local Road Imp. 1995 Bond	$ 39,487.50	$ 63,250.00	$ 60,700.00	$ 58,100.00	$ 55,450.00	$ 52,750.00	$ -	$ -	$ -	$ -
PROPERTY TAX ESTIMATION ASSUMPTIONS										
Percentage Increase to TV		5.00%	4.75%	4.50%	4.50%	4.25%	4.25%	4.25%	4.25%	4.25%
Total Taxable Value	$ 3,230,824,070	$ 3,392,365,274	$ 3,553,502,624	$ 3,713,410,242	$ 3,880,513,703	$ 4,045,435,535	$ 4,217,366,546	$ 4,396,604,624	$ 4,583,460,320	$ 4,778,257,384

Schedule 6
City of Rochester Hills
Local Road Fund Actual, Budgeted, and Estimated Revenues and Expenditures for 2001-2014

Fiscal Year:	Actual 2001	Actual 2002	Actual 2003	Budget 2004	Estimated 2005	Estimated 2006	Estimated 2007	Estimated 2008	Estimated 2009	Estimated 2010	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014	Comments
REVENUE CATEGORY															
License & Permits - Other	30,357	24,782	30,041	36,000	37,080	38,192	39,338	40,518	41,734	41,734	41,734	41,734	41,734	41,734	License & Permit assumption
Fed/State - FEMA Reimbursement	58,532	-	-	-	-	-	-	-	-	-	-	-	-	-	flat line
State Transportation Funds	1,050,405	1,077,452	1,129,565	1,155,185	1,207,514	1,235,486	1,266,573	1,298,429	1,331,074	1,360,358	1,469,995	1,502,335	1,535,386	1,569,165	Act 51 worksheet
State Funds - Local Roads	37,361	38,824	38,849	41,898	-	-	-	-	-	-	-	-	-	-	flat line as Build MI is now part of ACT 51 formula
Contributions - Rochester Community Schools	-	40,000	40,807	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000			per contract
Charge for Service - Admin Fees	10,066	7,260	9,019	6,000	6,102	6,224	6,361	6,501	6,644	6,790	6,939	7,092	7,248	7,408	CBO Inflation Rate assumption
Charge for Service - Legal Review Fees	990	90	180	500	509	519	530	542	554	566	578	591	604	617	CBO Inflation Rate assumption
Charge for Service - City Engineer Department	67,301	74,740	38,010	50,000	60,017	61,217	62,564	63,941	65,347	65,347	65,347	65,347	65,347	65,347	(avg of 01-03) then CBO then flat post 09
Charge for Service - Labor	77	-	75	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Charge for Service - Engineering Consultant	15,480	5,640	13,567	15,000	11,562	11,794	12,053	12,318	12,589	12,589	12,589	12,589	12,589	12,589	(avg of 01-03) then CBO then flat post 09
Charge for Service - Plan Review	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Charge for Service - Labor & Signs	25,506	27,994	13,140	20,000	22,213	22,658	23,156	23,666	24,186	24,186	24,186	24,186	24,186	24,186	(avg of 01-03) then CBO then flat post 09
Charge for Service - Tree Trimming & Removal	827	100	1,321	200	203	207	212	217	221	226	231	236	242	247	CBO Inflation Rate assumption
Sales- Driveway Culverts	-	2,478	933	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Fees - Bid Deposits	3,775	4,980	635	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Rental Equipment	49	-	(252)	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Interest & Dividend Earnings	221,532	102,447	58,936	65,000	48,830	42,834	39,200	36,369	34,853	34,299	34,754	37,660	41,548	44,089	Beg. Fund Balance * Int & Div Earnings assumption
Interest - SAD	40,774	35,471	27,601	22,145	19,931	17,937	16,144	14,529	13,076	11,769	10,592	9,533	8,579	7,721	Interest - SAD assumption
SAD	134,148	95,374	78,301	29,802	37,253	46,566	58,207	72,759	90,948	113,686	142,107	177,634	222,042	277,553	SAD - assumption
Reimbursement Sidewalk	16,259	(330)	19,211	-	-	-	-	-	-	-	-	-	-	-	flat line
Refunds & Rebates	8,488	12,285	9,356	-	-	-	-	-	-	-	-	-	-	-	flat line
Miscellaneous Revenue	435	49,440	(10,371)	300	318	337	357	379	401	426	451	478	507	537	Miscellaneous Revenue assumption
Bonds Proceeds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Bonds Proceeds assumption
Transfer In - CDBG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	flat line
Transfer In - General Fund	1,500,000	1,500,000	1,500,000	500,000	-	-	-	-	-	-	-	-	-	-	Transfer In - General Fund assumption
Transfers In - Major Roads	695,071	6,418,119	3,101,829	794,567	-	-	-	-	-	-	-	-	-	-	Act 51 worksheet
Transfers In - Capital Improvement Fund	3,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	Transfers In - Capital Improvement Fund assumption
TOTAL REVENUES	**6,917,433**	**9,517,146**	**6,100,752**	**2,776,597**	**1,491,532**	**1,523,971**	**1,564,695**	**1,610,167**	**1,661,629**	**1,711,976**	**1,849,504**	**1,919,416**	**1,960,012**	**2,051,193**	
Fund Balance to Balance				1,892,555											
(see 2004 Adopted Budget)				4,669,152											
EXPENDITURE CATEGORY															
Transfers Out															
Transfer Out - Major Roads	37,361	38,824	38,849	38,800	-	-	-	-	-	-	-	-	-	-	Transfer Out - Major Roads assumption
Transfer Out - Local Road Imp. 2001 Bond	-	141,800	163,400	170,750	192,288	189,038	235,588	230,188	224,488	268,488	260,488	252,288	268,788	284,000	Transfer Out - Local Road Imp. 2001 Bond assumption
Transfer Out - SAD 2001 Bond	-	110,730	128,300	126,325	123,050	120,050	117,050	114,050	111,050	108,050	130,050	125,950	121,650	142,250	Transfer Out - SAD 2001 Bond assumption
Transfer Out - SAD 2002 Bond	-	-	294,100	326,136	346,361	366,111	385,111	403,080	444,330	433,455	472,205	458,205	469,205	479,205	Transfer Out - SAD 2002 Bond assumption
Transfer Out - Local Road Imp. 1987 Bond	9,336	8,672	-	-	-	-	-	-	-	-	-	-	-	-	Transfer Out - Local Road Imp. 1987 Bond assumption
Transfer Out - Local Road Imp. 1988 Bond	20,732	19,499	18,558	-	-	-	-	-	-	-	-	-	-	-	Transfer Out - Local Road Imp. 1988 Bond assumption
Transfer Out - Local Road Imp. 1994 Bond	46,513	70,300	67,875	65,775	62,875	60,300	57,725	55,150	52,725	-	-	-	-	-	Transfer Out - Local Road Imp. 1994 Bond assumption
Transfer Out - Local Road Imp. 1995 Bond	44,163	43,038	41,888	41,050	39,488	63,250	60,700	58,100	55,450	52,750	-	-	-	-	Transfer Out - Local Road Imp. 1995 Bond assumption
Transfer Out - Local Road Imp. 2001 Const.	2,502,500	-	-	-	-	-	-	-	-	-	-	-	-	-	Transfer Out - Local Road Imp. 2001 Const. assumption
Transfer Out - SAD 2001 Const.	352,500	-	-	-	-	-	-	-	-	-	-	-	-	-	Transfer Out - SAD 2001 Const. Assumption
Transfer Out - Local Road Imp. 2001 Const.	-	4,600,000	-	-	-	-	-	-	-	-	-	-	-	-	Transfer Out - Local Road Imp. 2001 Const. assumption
Transfer Out Fleet	84,227	-	9,090	-	-	-	-	-	-	-	-	-	-	-	Transfer Out Fleet assumption
TOTAL LOCAL ROAD TRANSFER OUT	3,097,332	5,032,863	762,060	768,836	764,061	798,748	856,173	860,567	888,042	862,743	862,743	836,443	859,643	905,455	

Schedule 6
City of Rochester Hills
Local Road Fund Actual, Budgeted, and Estimated Revenues and Expenditures for 2001-2014

Fiscal Year:	Actual 2001	Actual 2002	Actual 2003	Budget 2004	Estimated 2005	Estimated 2006	Estimated 2007	Estimated 2008	Estimated 2009	Estimated 2010	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014	Comments
Construction															
Total Compensation	130,294	420,460	273,108	216,970	390,585	411,296	432,912	456,438	482,106	510,182	540,968	574,805	612,086	653,255	based on conf. wage assump. & anticipated construction
Clothing	-	361	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Overtime Meal Allowance	231	-	-	500	509	519	530	542	554	566	578	591	604	617	CBO Inflation Rate assumption
Operating Supplies	-	241	-	300	305	311	318	325	332	340	347	355	362	370	CBO Inflation Rate assumption
Material - Drainage Improvement	-	-	-	1,000	1,017	1,037	1,060	1,083	1,107	1,132	1,157	1,182	1,208	1,235	CBO Inflation Rate assumption
Professional Services	97,558	118,918	35,431	75,000	103,692	105,766	108,093	110,471	112,901	115,385	117,923	120,518	123,169	125,879	based on anticipated construction then CBO inflation
Printing & Publishing	1,116	141	1,364	1,000	1,017	1,037	1,060	1,083	1,107	1,132	1,157	1,182	1,208	1,235	CBO Inflation Rate assumption
Rental Equipment	9,161	8,818	7,279	12,000	12,204	12,448	12,722	13,002	13,288	13,580	13,879	14,184	14,496	14,815	CBO Inflation Rate assumption
Miscellaneous Expense	-	250	-	100	102	104	106	108	111	113	116	118	121	123	CBO Inflation Rate assumption
Construction & Improvements	(124,641)	260,515	1,890,126	-	-	-	-	-	-	-	-	-	-	-	see Construction Millage Need sheet
TOTAL CONSTRUCTION	113,719	809,704	2,207,307	306,870	509,430	532,518	556,801	583,053	611,506	642,429	676,124	712,935	753,255	797,529	
Routine Maintenance															
Total Compensation	593,252	656,713	759,679	833,470	880,232	931,398	987,517	1,049,219	1,117,221	1,192,343	1,275,516	1,367,807	1,470,430	1,584,774	based on confidential wage assumptions
Clothing	457	1,346	66	800	814	830	848	867	886	905	925	946	966	988	CBO Inflation Rate assumption
Overtime Meal Allowance	-	63	174	100	102	104	106	108	111	113	116	118	121	123	CBO Inflation Rate assumption
Operating Supplies	4,478	5,058	4,628	6,000	6,102	6,224	6,361	6,501	6,644	6,790	6,939	7,092	7,248	7,408	CBO Inflation Rate assumption
Material - Chloride	49,137	83,033	76,519	-	-	-	-	-	-	-	-	-	-	-	flat line
Material - Road Maintenance - Paved	73,629	111,484	131,116	150,000	152,550	155,601	159,024	162,523	166,098	169,752	173,487	177,304	181,204	185,191	CBO Inflation Rate assumption
Material - Road Maintenance - Gravel	101,378	23,950	-	90,000	91,530	93,361	95,415	97,514	99,659	101,851	104,092	106,382	108,723	111,115	CBO Inflation Rate assumption
Professional Services	306	11	60	-	-	-	-	-	-	-	-	-	-	-	flat line
Contractual Services	250	8,162	11,225	206,700	210,214	214,418	219,135	223,956	228,883	233,919	239,065	244,324	249,700	255,193	CBO Inflation Rate assumption
Contractual Sidewalk Program	39,424	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Contractual Tree Trimming Removal	26,562	31,969	43,014	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Membership Dues	530	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Travel & Seminars	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Maintenance - Equipment	432	-	(9,696)	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Routine Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Rental Equipment	448,145	381,919	418,711	420,000	427,140	435,683	445,268	455,064	465,075	475,307	485,764	496,450	507,372	518,534	CBO Inflation Rate assumption
Rental Uniform	4,341	4,256	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Occupancy Facility Charges	45,273	65,357	90,219	80,915	82,291	83,936	85,783	87,670	89,599	91,570	93,585	95,644	97,748	99,898	CBO Inflation Rate assumption
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
TOTAL ROUTINE MAINTENANCE	1,387,594	1,373,321	1,525,715	1,787,985	1,850,974	1,921,555	1,999,457	2,083,422	2,174,176	2,272,551	2,379,489	2,496,067	2,623,512	2,763,224	
Traffic Services															
Total Compensation	238,758	314,822	353,765	382,750	404,461	428,436	454,780	483,796	515,833	551,288	590,614	634,327	683,018	737,363	based on confidential wage assumptions
Clothing	-	-	66	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Overtime Meal Allowance	-	-	-	50	51	52	53	54	55	57	58	59	60	62	CBO Inflation Rate assumption
Operating Supplies	70,266	35,595	54,544	75,000	76,275	77,801	79,512	81,261	83,049	84,876	86,743	88,652	90,602	92,595	CBO Inflation Rate assumption
Professional Services	7,439	21,053	10,894	10,000	10,170	10,373	10,602	10,835	11,073	11,317	11,566	11,820	12,080	12,346	CBO Inflation Rate assumption
Membership Dues	120	4,777	5,667	6,500	6,611	6,743	6,891	7,043	7,198	7,356	7,518	7,683	7,852	8,025	CBO Inflation Rate assumption
Travel & Seminars	234	26	2,276	2,500	2,543	2,593	2,650	2,709	2,768	2,829	2,891	2,955	3,020	3,087	CBO Inflation Rate assumption
Printing & Publishing	-	19	-	100	102	104	106	108	111	113	116	118	121	123	CBO Inflation Rate assumption
Street Lighting	20,155	12,707	22,720	25,000	25,425	25,934	26,504	27,087	27,683	28,292	28,914	29,551	30,201	30,865	CBO Inflation Rate assumption
Rental Equipment	16,321	25,489	37,109	25,000	25,425	25,934	26,504	27,087	27,683	28,292	28,914	29,551	30,201	30,865	CBO Inflation Rate assumption
Occupancy Facility Charges	13,620	11,035	13,880	12,448	12,660	12,913	13,197	13,487	13,784	14,087	14,397	14,714	15,038	15,368	CBO Inflation Rate assumption
Rental Lease Land & Building	7,000	7,000	9,200	7,000	7,119	7,261	7,421	7,584	7,751	7,922	8,096	8,274	8,456	8,642	CBO Inflation Rate assumption
Miscellaneous Expense	90	-	-	100	102	104	106	108	111	113	116	118	121	123	CBO Inflation Rate assumption
Equipment Capitalized	-	-	8,075	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
TOTAL TRAFFIC MAINTENANCE	374,003	432,523	518,198	546,448	570,942	598,246	628,326	661,160	697,099	736,542	779,944	827,822	880,770	939,465	

Schedule 6
City of Rochester Hills
Local Road Fund Actual, Budgeted, and Estimated Revenues and Expenditures for 2001-2014

Fiscal Year:	Actual 2001	Actual 2002	Actual 2003	Budget 2004	Estimated 2005	Estimated 2006	Estimated 2007	Estimated 2008	Estimated 2009	Estimated 2010	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014	Comments
Winter Maintenance															
Total Compensation	211,209	201,806	326,725	311,300	329,096	348,606	370,038	393,638	419,688	448,509	480,468	515,981	555,526	599,649	based on confidential wage assumptions
Overtime Meal Allowance	152	686	992	1,000	1,017	1,037	1,060	1,083	1,107	1,132	1,157	1,182	1,208	1,235	CBO Inflation Rate assumption
Operating Supplies	3,238	233	330	1,500	1,526	1,556	1,590	1,625	1,661	1,698	1,735	1,773	1,812	1,852	CBO Inflation Rate assumption
Material - Road Maint. - Paved (salt & deicer)	60,223	57,337	-	95,000	96,615	98,547	100,715	102,931	105,196	107,510	109,875	112,292	114,763	117,288	CBO Inflation Rate assumption
Material - Road Maint. - Gravel (sand & chloride)	5,432	(192)	72,060	10,000	10,170	10,373	10,602	10,835	11,073	11,317	11,566	11,820	12,080	12,346	CBO Inflation Rate assumption
Professional Services	20	-	18	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Contractual Services	-	-	-	20,000	20,340	20,747	21,203	21,670	22,146	22,634	23,132	23,640	24,161	24,692	CBO Inflation Rate assumption
Travel & Seminars	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Routine Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Rental Equipment	182,298	136,087	230,032	235,000	238,995	243,775	249,138	254,619	260,221	265,945	271,796	277,776	283,887	290,132	CBO Inflation Rate assumption
Miscellaneous Expense	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
TOTAL WINTER MAINTENANCE	462,572	395,957	630,157	673,800	697,759	724,642	754,347	786,401	821,092	858,744	899,728	944,465	993,437	1,047,194	
Administration															
Total Compensation	75,228	58,732	141,618	132,070	139,898	148,509	157,994	168,467	180,057	192,913	207,203	223,121	240,888	260,754	based on confidential wage assumptions
Clothing	476	-	1,380	800	814	830	848	867	886	905	925	946	966	988	CBO Inflation Rate assumption
Tuition Refund	-	-	-	3,150	3,204	3,268	3,340	3,413	3,488	3,565	3,643	3,723	3,805	3,889	CBO Inflation Rate assumption
Office Supplies	-	-	482	1,000	1,017	1,037	1,060	1,083	1,107	1,132	1,157	1,182	1,208	1,235	CBO Inflation Rate assumption
Operating Supplies	420	1,140	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Professional Services	4	-	-	20,000	20,340	20,747	21,203	21,670	22,146	22,634	23,132	23,640	24,161	24,692	CBO Inflation Rate assumption
Professional Services - Other	-	6,945	18,077	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Interfund Charges Admin	552,719	582,832	426,631	277,141	504,732	513,312	523,578	535,097	546,869	558,900	571,196	583,762	596,605	609,730	avg 02 & 03 then CBO
Interfund Charges MIS	110,448	67,430	92,047	90,838	79,739	81,094	82,716	84,536	86,395	88,296	90,239	92,224	94,253	96,326	avg 02 & 03 then CBO
Recording Fees	758	685	1,129	800	814	830	848	867	886	905	925	946	966	988	CBO Inflation Rate assumption
Membership Dues	4,791	1,375	-	400	407	415	424	433	443	453	463	473	483	494	CBO Inflation Rate assumption
Travel & Seminars	754	294	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Printing & Publishing	138	716	12	200	203	207	212	217	221	226	231	236	242	247	CBO Inflation Rate assumption
Liability Insurance & Bonds	19,230	18,458	21,060	21,943	22,316	22,762	23,263	23,775	24,298	24,833	25,379	25,937	26,508	27,091	CBO Inflation Rate assumption
Maintenance Equipment	125	-	-	750	763	778	795	813	830	849	867	887	906	926	CBO Inflation Rate assumption
Rental Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
Rental Uniform	-	-	4,081	5,000	5,085	5,187	5,301	5,417	5,537	5,658	5,783	5,910	6,040	6,173	CBO Inflation Rate assumption
Occupancy Facility Charges	49,883	40,911	17,932	31,121	31,650	32,283	32,993	33,719	34,461	35,219	35,994	36,786	37,595	38,422	CBO Inflation Rate assumption
Equipment Capitalized	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CBO Inflation Rate assumption
TOTAL ADMINISTRATION	814,974	779,518	724,448	585,213	810,980	831,259	854,576	880,373	907,625	936,488	967,137	999,773	1,034,626	1,071,955	
TOTAL EXPENDITURES	**6,250,194**	**8,823,886**	**6,367,885**	**4,669,152**	**5,204,145**	**5,406,968**	**5,649,680**	**5,854,977**	**6,099,541**	**6,309,497**	**6,565,165**	**6,817,505**	**7,145,242**	**7,524,822**	

Schedule 7
City of Rochester Hills
Estimation of Act 51 Dollars for Local and Major Road Funds for 2004 to 2014

MASTER ASSUMPTIONS/DATA COMPONENTS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Population:	68,825	68,825	68,825	68,825	68,825	68,825	68,825	75,744	75,744	75,744	75,744
Miles of Roads:											
- Trunkline:	32.28	32.28	32.28	32.28	32.28	32.28	32.28	32.28	32.28	32.28	33.28
- Major	36.66	36.66	36.66	36.66	36.66	36.66	36.66	36.66	36.66	36.66	37.66
- Local	204.29	204.29	205.79	207.29	208.79	210.29	210.29	210.29	210.29	210.29	210.29
Major Streets Population Factor	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Assumed Rate of Annual Growth			2.0%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%

Mileage listed varies slightly from that in body of report based on actual miles reported by Michigan Department of Transportation for 2004.

MAJOR STREETS CALCULATION

Per Capita Distribution	31.62	30.39	31.00	31.68	32.38	33.09	33.82	34.56	35.32	36.10	36.89
TOTAL PER CAPITA AMOUNT	31.62	30.39	31.00	31.68	32.38	33.09	33.82	34.56	35.32	36.10	36.89
Per Mile Distribution	9,948.00	9,509.00	9,699.18	9,912.56	10,130.64	10,353.51	10,581.29	10,814.08	11,051.99	11,295.13	11,543.62
TOTAL PER MILE AMOUNT	9,948	9,509	9,699	9,913	10,131	10,354	10,581	10,814	11,052	11,295	11,544
REVENUE FORMULA:											
population * per capita amount	2,176,247	2,091,592	2,133,424	2,180,359	2,228,327	2,277,350	2,327,452	2,617,783	2,675,374	2,734,232	2,794,385
# of miles * amt. per mile * factor	1,711,792	1,636,252	1,668,977	1,705,694	1,743,219	1,781,570	1,820,765	1,860,822	1,901,760	1,943,598	2,045,230
TOTAL ANNUAL REVENUE	3,888,039	3,727,843	3,802,400	3,886,053	3,971,546	4,058,920	4,148,217	4,478,604	4,577,134	4,677,831	4,839,615
% transfer to Local Roads		-	-	-	-	-	-	-	-	-	-
Total MS Revenue to Transfer to Local Roads	-	-	-	-	-	-	-	-	-	-	-

LOCAL STREETS CALCULATION

Per Capita Distribution	10.54	10.13	10.33	10.56	10.79	11.03	11.27	11.52	11.77	12.03	12.30
TOTAL PER CAPITA AMOUNT	10.54	10.13	10.33	10.56	10.79	11.03	11.27	11.52	11.77	12.03	12.30
Per Mile Distribution	2,599.00	2,498.00	2,547.96	2,604.02	2,661.30	2,719.85	2,779.69	2,840.84	2,903.34	2,967.21	3,032.49
TOTAL PER MILE AMOUNT	2,599	2,498	2,548	2,604	2,661	2,720	2,780	2,841	2,903	2,967	3,032
REVENUE FORMULA:											
population * per capita amount	725,416	697,197	711,141	726,786	742,776	759,117	775,817	872,594	891,791	911,411	931,462
# of miles * amt. per mile	530,950	510,316	524,345	539,786	555,654	571,958	584,541	597,401	610,543	623,975	637,703
TOTAL ANNUAL REVENUE	**1,256,365**	**1,207,514**	**1,235,486**	**1,266,573**	**1,298,429**	**1,331,074**	**1,360,358**	**1,469,995**	**1,502,335**	**1,535,386**	**1,569,165**