

# 1993 Budget

Quality Life Through Good Roads  
Road Commission for Oakland County  
We Care

As Adopted



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1993





GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO  
Road Commission for Oakland County,  
Michigan

For the Fiscal Year Beginning

October 1, 1991

*John L. ...* *Jeffrey L. Esser*

President

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented an award for Distinguished Budget Presentation to the Road Commission for Oakland County for its annual budget beginning October 1, 1991.

In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan and as a communication device.

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COPY OF RESOLUTION ADOPTED BY THE BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE COUNTY OF OAKLAND, MICHIGAN  
UNDER DATE OF SEP 24 1992

RESOLVED, that the revenue of the Road Commission for Oakland County for fiscal year ending September 30, 1993 is estimated to be \$68,063,000 with proceeds from long-term debt of \$2,400,000 for total revenue of \$70,463,000. This amount is hereby budgeted and appropriated for fiscal year 1993 in the amount of \$70,463,000 to service the Operating and Road Improvement Program expenditures of the Road Commission for Oakland County.

<u>Revenue</u>	<u>1993 Fiscal Year Revenue Appropriation</u>
Fuel and Vehicle Taxes	\$35,800,000
Other Federal & State Revenue	<u>23,550,408</u>
Subtotal:	\$59,350,408
Revenue from Local Government	\$ 6,458,453
Fees and Other Revenue	<u>2,254,139</u>
Subtotal:	\$ 8,712,592
Sub-Total:	\$68,063,000
Proceeds from Long-Term Debt:	<u>\$ 2,400,000</u>
Total Revenue:	\$70,463,000

FURTHER RESOLVED, that \$70,463,000 of anticipated revenue is hereby appropriated for the following purposes:

<u>Operating Expenditures</u>	<u>1993 Fiscal Year Expenditure Appropriation</u>
Board of Road Commissioners	\$ 111,100
Managing Director	636,405
Planning & Development	704,929
Citizen Services	200,113
Finance	616,132
Legal	455,757
Personnel	315,667
Central Operations	6,403,386
Engineering	4,395,086
Traffic Safety	7,788,553
Highway Maintenance	15,675,182
Non-Departmental	<u>14,494,571</u>
<b>Total Operating Expenditures:</b>	<b>\$51,796,881</b>
Road Improvement Program --	
Contractor Payments & Rights of Way:	\$18,666,119
<b>Total Expenditures:</b>	<b>\$70,463,000</b>

The Budget appropriation for the Road Improvement Program for Fiscal Year ending September 30, 1993 is as follows:

<u>1993 Road Improvement Program</u>	<u>Budget Appropriation</u>	<u>Total 1993 Road Improvement Program</u>
1993 Safety Road Widenings	\$4,877,000	\$6,082,250
1993 Safety Intersection Projects	405,000	485,000
1993 Pave Gravel Roads	150,000	300,000
1993 Tri-Party Program	1,180,000	1,500,000
1993 Major Resurfacing with Safety (Restoration, Resurfacing, Rehabilitation)	604,250	690,000
1993 Bridges and Bridge Restoration	0	70,000
1993 Contract Maintenance Bridge Management	0	20,000
1993 Drainage Improvements	<u>41,750</u>	<u>50,000</u>
Subtotal:	\$7,258,000	\$9,197,250
 <u>Completion of 1992 Projects in Progress</u>		
Safety Road Widenings	\$ 8,120,000	\$10,100,000
Safety Intersections	275,000	325,000
Pave Gravel Roads	0	80,000
Bridges and Bridge Restoration	890,000	1,160,000
Tri-Party	1,325,000	1,500,000
Other	<u>798,119</u>	<u>798,119</u>
Subtotal:	\$11,408,119	\$13,963,119
 <b>Total Contractor Payments &amp; ROW:</b>	 <b>\$18,666,119</b>	
 <b>Total 1993 Road Improvement Program:</b>		 <b>\$23,160,369</b>
<b>Special Assessment Districts Program:</b>		<b>2,325,000</b>
 <b>GRAND TOTAL:</b>		 <b>\$25,485,369</b>



FURTHER RESOLVED, that no department, division, district, employee or official shall expend any funds or obligate the expenditure of any funds except pursuant to appropriations made by the Board of County Road Commissioners. Changes in the amounts appropriated by the Board shall require approval by the Board of County Road Commissioners.

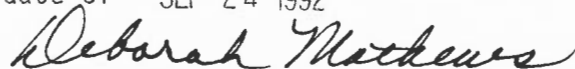
FURTHER RESOLVED, that Budget Exhibits A-1 through A-7 of the 1993 Budget Document are hereby adopted. Transfer of appropriations from one object of expenditure to another, within a department, may be made upon the written authorization of the Managing Director; however, no transfers shall be made between departments without approval by the Board of County Road Commissioners.

FURTHER RESOLVED, that the number of authorized positions (Budget Exhibit A-7) shall not be changed without approval by the Board of County Road Commissioners. New employees may be hired to fill vacant budgeted positions in lesser paid classifications upon written authorization by the Managing Director.

BE IT FURTHER RESOLVED, that the amount appropriated for overtime and seasonal salaries (Budget Exhibit A-5) may not be changed without approval by the Board of County Road Commissioners.

BE IT FURTHER RESOLVED, that the Managing Director is hereby charged with general supervision of the execution of the Budget adopted by the Board and shall hold the department heads responsible for performance of their responsibilities within the amounts appropriated by the Board of County Road Commissioners.

I hereby certify that the above is a true and correct copy of a resolution adopted by the Board of County Road Commissioners of the County of Oakland, State of Michigan, under date of SEP 24 1992



Deborah Mathews  
Deputy-Secretary/Clerk of the Board

COPY OF RESOLUTION ADOPTED BY THE BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE COUNTY OF OAKLAND, MICHIGAN  
UNDER DATE OF SEP 24 1992

WHEREAS, the Managing Director has, pursuant to provisions of the Uniform Budgeting and Accounting Act, recommended a budget for Fiscal Year 1993 and;

WHEREAS, a public hearing was held on said budget in compliance with said Act, and;

WHEREAS, the Board of Oakland County Road Commissioners, having reviewed the budget and taken into consideration the verbal and written comments of the public hearing and having received additional information from the Managing Director, is desirous of making changes in the recommended budget;

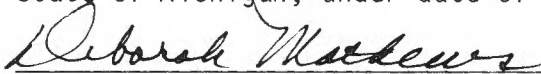
NOW BE IT FURTHER RESOLVED, that the Managing Director's recommended budget is amended as follows:

	<u>Revenue</u>	<u>Expenditures</u>
Budget as Presented at Public Hearing:	\$70,463,000	\$70,463,000
<b>Increase:</b>		
1. Finance		
Personal computer		600
2. Central Operations		
Personal computer		500
Road equipment price adjustment		23,300
3. Engineering		
Road equipment price adjustment		9,500
4. Traffic Safety		
Road equipment price adjustment		10,000
5. Road Commission Contingency		181,590

**Decrease:**

6. Highway Maintenance Road equipment price adjustment		<30,000>
7. Road Improvement Program		<81,000>
8. Salary adjustments Due to retirements/transfers, base/longevity changes		<114,490>
	<hr/>	<hr/>
1993 Budget Proposed for Adoption	\$70,463,000	\$70,463,000

I hereby certify that the above is a true and correct copy of a resolution adopted by the Board of County Road Commissioners for Oakland County, State of Michigan, under date of SEP 24 1992



Deborah Mathews  
Deputy-Secretary/Clerk of the Board

COPY OF RESOLUTION ADOPTED BY THE BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE COUNTY OF OAKLAND, MICHIGAN  
UNDER DATE OF SEP 24 1992

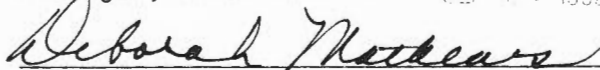
RESOLVED, that the total revenue for the Road Commission for Oakland County Special Assessment Fund for Fiscal Year ending September 30, 1993 is estimated to be \$3,745,000. This amount, along with appropriation of fund balance of \$125,500, for a total of \$3,870,500, is hereby budgeted and appropriated to service the Special Assessment Fund expenditures of the Road Commission for Oakland County.

<u>Revenue</u>	<u>1993 Fiscal Year Revenue Appropriation</u>
Revenue from Special Assessment Rolls	\$3,000,000
Road Fund Contributions Net Underassessment	25,000
Interest on Assessment Rolls	625,000
Interest on Investments	95,000
	<u>\$3,745,000</u>
Appropriation of Fund Balance	125,500
	<u>125,500</u>
<b>Total Revenue and Appropriation of Fund Balance</b>	<b>\$3,870,500</b>

FURTHER RESOLVED, that the \$3,870,500 of anticipated revenue and appropriation of fund balance is hereby appropriated for the following purposes:

<u>Operating Expenditures</u>	<u>1993 Fiscal Year Expenditure Appropriation</u>
Contractor Payments	\$2,000,000
Engineering and Administration	325,000
Principal Payment on Debt	1,200,000
Interest on Debt	290,500
Refund of Overassessments to Participants (net)	50,000
Note Payment Fees and Issue Costs	5,000
	<u>5,000</u>
<b>Total Expenditures</b>	<b>\$3,870,500</b>

I hereby certify that the above is a true and correct copy of a resolution adopted by the Board of County Road Commissioners of the County of Oakland, State of Michigan, under date of SEP 24 1992

  
Deborah Mathews  
Deputy-Secretary/Clerk of the Board

COPY OF RESOLUTION ADOPTED BY THE BOARD OF COUNTY ROAD  
COMMISSIONERS OF THE COUNTY OF OAKLAND, MICHIGAN  
UNDER DATE OF SEP 24 1992

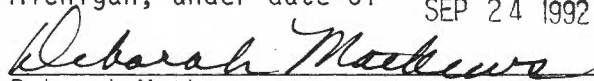
RESOLVED, that the total revenue for the Road Commission for Oakland County Intelligent Vehicle Highway System (IVHS) Program Fund for Fiscal Year ending September 30, 1993 is estimated to be \$8,900,000, an increase of \$100,000 over the appropriation included in the public hearing budget. This amount is hereby budgeted and appropriated to fund the Intelligent Vehicle Highway System Program Fund project expenditures of the Road Commission for Oakland County.

<u>Revenue</u>	<u>1993 Fiscal Year Revenue Appropriation</u>
Federal Revenue -- I.V.H.S.	\$8,900,000
<b>Total Revenue</b>	<b>\$8,900,000</b>

FURTHER RESOLVED, that the \$8,900,000 of anticipated revenue is hereby appropriated for the following purposes:

<u>Operating Expenditures</u>	<u>1993 Fiscal Year Expenditure Appropriation</u>
I.V.H.S. Project Expenses	\$8,375,000
I.V.H.S. Projects -- R.C.O.C. Labor Costs	525,000
<b>Total Expenditures</b>	<b>\$8,900,000</b>

I hereby certify that the above is a true and correct copy of a resolution adopted by the Board of County Road Commissioners of the County of Oakland, State of Michigan, under date of SEP 24 1992

  
Deborah Mathews  
Deputy-Secretary/Clerk of the Board



# ROAD COMMISSION for OAKLAND COUNTY

MEMBER



1918

STATE OF MICHIGAN

## BOARD OF ROAD COMMISSIONERS

BOARD OF ROAD COMMISSIONERS

LAWRENCE E. LITTMAN  
CHAIRMAN

RICHARD V. VOGT  
COMMISSIONER

RUDY D. LOZANO  
COMMISSIONER

JOHN L. GRUBBA  
MANAGING DIRECTOR

BRENT O. BAIR  
DEPUTY MANAGING DIRECTOR

GERALD M. HOLMBERG  
COUNTY HIGHWAY ENGINEER  
ASSISTANT MANAGING DIRECTOR

August 27, 1992

### THE HONORABLE BOARD OF ROAD COMMISSIONERS OAKLAND COUNTY, MICHIGAN

Gentlemen:

Transmitted herewith is the recommended budget for the Road Commission operations and Road Improvement Program for the fiscal year ending September 30, 1993 for adoption by the Board of Road Commissioners.

#### Overview of the Proposed 1993 Budget

Summary Table 1 shows revenue of \$68,063,000 and proceeds from long-term debt of \$2,400,000 for a total of \$70,463,000. This provides for operating expenditures of \$51,715,881, and a Road Improvement Program of \$18,747,119 for contractor payments and purchases of rights-of-way. The program total, which amounts to \$23,241,369, includes the following amounts which are a part of departmental operating expenditures:

Engineering	\$3,564,250
Engineering Consultants	640,000
Traffic-Safety	<u>290,000</u>
	\$4,494,250

In addition, the program includes \$2,325,000 for Special Assessment District projects.

#### Revenue

Summary Table 2 shows the breakdown of 1993 revenue compared with the prior year's actual, the 1992 amended budget, and the 1992 estimated actual. The 1993 estimated funding for the fiscal year is \$70,463,000. Other state and federal revenue include amounts received from the state for maintaining the state trunk lines as well as revenue generated by the Road Improvement Program. Fees and other revenue include interest earned and fees collected for services performed by the Road Commission, such as inspection charges and permit fees.

**Expenditures**

Summary Table 3 shows recommended departmental appropriations compared with the prior year's actual, the 1992 amended budget, and 1992 estimated expenditures. The 1993 Budget of 540 authorized positions represents an increase of eight positions over the 1992 amended budget, due in large part to the implementation of the Intelligent Vehicle-Highway System.

Respectfully submitted,



John L. Grubba  
Managing Director

JLG:lb  
Enclosure

COPY OF RESOLUTION ADOPTED BY THE  
BOARD OF COUNTY ROAD COMMISSIONERS  
FOR OAKLAND COUNTY, MICHIGAN,  
UNDER DATE OF AUG -6 1992

WHEREAS, MSA 141.43, Section 14, requires a Public Hearing on the proposed Road Commission Budget; and

WHEREAS, the Managing Director has presented a proposed 1993 Budget and proposed 1993 Primary and Local Road Improvement Program for the Fiscal Year ending September 30, 1993.

NOW, THEREFORE BE IT RESOLVED, that the Road Commissioners acknowledge receipt of and hereby give notice of a Public Hearing to be held at 7:30 p.m. on Thursday, August 27, 1992, at the Oakland County Auditorium, Oakland County Service Center, 1200 N. Telegraph, Pontiac, Michigan 48341, for the purpose of presenting the Road Commission's proposed 1993 Budget and proposed 1993 Primary and Local Road Improvement Program, and providing an opportunity to all interested citizens and elected officials of Oakland County to present comments thereon prior to adoption by the Board of Road Commissioners.

BE IT FURTHER RESOLVED, that the publication of the Notice of Public Hearing is hereby authorized.

I hereby certify that the above is a true and correct copy of a resolution adopted by the Board of County Road Commissioners for Oakland County, State of Michigan, under the date of: AUG -6 1992



Deborah Mathews  
Deputy-Secretary/Clerk of the Board



**Board of Oakland County Road Commissioners**  
**Inter-Office Memorandum**

**Date:** April 6, 1992

**To:** All Department Directors  
**From:** John L. Grubba, Managing Director  
**Subject:** 1993 Budget

Enclosed are forms for departmental budget requests for Fiscal Year 1993. Dates have been established for completion and must be met so the recommended budget for the fiscal year ending September 30, 1993 can be presented to the Board of Road Commissioners on August 6, 1992.

Safety remains the number one priority of the Road Commission and this commitment to our employees and to the public, who use our roads, is to be continued. This emphasis on safety is to be reflected in all departmental budgets.

All requests for capital expenditures of \$10,000 or more, including replacement units, are to be accompanied by a cost/benefit analysis. Requests for road equipment replacements must be accompanied by information supporting the purchase as opposed to continued maintenance of the specific piece of equipment. Consideration must also be given to the lease-purchase alternative. The Financial Planning Group analysis of the condition of the fleet should be included in the documentation submitted.

The level of revenues from the Michigan Transportation Fund remains uncertain since no legislative increases have been enacted and the pace of the economic recovery is unknown.

Therefore, in preparing work programs and budget requests for Fiscal Year 1993, department directors shall incorporate Strategic Planning goals and review their departmental operations identifying all cost reductions, cost containment measures, and operating efficiencies in their budget submissions.

Department directors shall submit updates of their department Strategic Plan with their budget requests.

Enclosures

c: Brent O. Bair  
Gerald M. Holmberg



JLG:jpt

# Glossary

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<b>Ali-Scout:</b>	An advanced traveler information system which monitors the ebb and flow of vehicles and broadcasts audible and graphic directions and roadway instructions to drivers through low-powered on-board receivers.
<b>Appropriation:</b>	Authorization made by the Board of Road Commissioners permitting the Road Commission to incur obligations and to make expenditures.
<b>Asset:</b>	Property owned which has a monetary value.
<b>A.T.M.S.:</b>	Advanced Traffic Management System. See I.V.H.S.
<b>Autoscope:</b>	Video-vision technology which utilizes intersection-placed television cameras to "count" and evaluate speed for all vehicles entering the influence zone of an intersection for signal timing.
<b>Budget:</b>	A financial plan for a specific period of time (fiscal year).
<b>Budget Adjustment:</b>	A procedure by the Board of Road Commissioners or Managing Director to amend budget appropriations. Also called appropriation transfer.
<b>Capital Assets:</b>	Assets of significant value and having a useful life of several years. Capital assets are also called fixed assets.
<b>Capital Outlay:</b>	Expenditures which result in the replacement of or addition to fixed assets.
<b>Contingency Account:</b>	A budgetary reserve set aside for emergencies or unforeseen expenditures not otherwise budgeted.
<b>Critical Bridge:</b>	Federal funding program to replace deficient bridges. The state supplements the fund and prioritizes the projects.
<b>Debt Service:</b>	Payment of interest and repayment of principal to holders of a government's debt instruments.
<b>Demo:</b>	Demonstration Projects. Federally-sponsored transportation demonstration projects include Congressional and U. S. Department of Transportation.
<b>Expenditures:</b>	The outflow of funds paid for assets, goods, services, and costs related to the Road Improvement Program.
<b>FAS:</b>	Federal Aid Secondary. Federal road improvement funding specifically for designated <b>rural</b> roads and highways. In 1992, FAS was incorporated into STP funding.

# Glossary

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<b>FAUS:</b>	Federal Aid to Urban Systems. One of the two largest sources of road improvement funding, specifically, for designated roads and highways in <b>urban</b> areas. In 1992, FAUS was incorporated into STP funding.
<b>Fiscal Year:</b>	The time period designating the beginning and ending period for recording financial transactions. The Road Commission has specified October 1 to September 30 as its fiscal year.
<b>Fund:</b>	An accounting entity that has a set of self-balancing accounts and records financial transactions for specific activities or government functions. Examples of fund types are: Special revenue funds, which include the road fund, special assessment fund and IVHS fund; debt service fund; and trust and agency funds which include the pension trust fund.
<b>Fund Balance:</b>	Fund balance is the excess of assets over liabilities and reserves.
<b>HES:</b>	Hazard Elimination/Safety Program. Funding for highway safety improvements.
<b>I.V.H.S.:</b>	Intelligent Vehicle Highway System. A traffic guidance/information system.
<b>Line Item Budget:</b>	A budget that lists each expenditure category (salaries, contracted services, materials, capital outlay, fixed charges and other expenses) separately along with the dollar amount budgeted for each specific category.
<b>Maturities:</b>	The dates on which the principal or stated values of investments or debt obligations mature and may be reclaimed.
<b>Modified Accrual:</b>	Accounting basis for the Road Commission for Oakland County budget and financial reports.
<b>Operating Budget:</b>	The portion of the budget that pertains to daily operations that provide basic governmental services. The RCOC operating budget contains appropriations for such expenditures as personnel, supplies, utilities, materials, purchase of road vehicles, graders, fuel, etc.
<b>R.C.O.C.:</b>	Road Commission for Oakland County.
<b>Revenue:</b>	Funds the Road Commission receives as income. It includes four major categories: fuel and vehicle taxes; Federal and state revenue; revenue from local governments; and fees and other revenue.

# Glossary

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- S.A.D.:** Special Assessment Districts. Street improvements on subdivision streets.
- S.C.A.T.S.:** Sydney Coordinated Adaptive Traffic System. See section on Traffic Safety under "Departments."
- Special Assessment:** A levy made against certain properties (subdivisions) to defray the cost of specific road improvements deemed to primarily benefit those properties.
- STP:** Surface Transportation Program. A new block grant type program that may be used for any roads except local or rural collectors, now called Federal-aid roads. Established by the Intermodal Surface Transportation Efficiency Act of 1991.
- TEDF:** Transportation Economic Development Fund. The fund was created in 1987 to fund road improvements in areas of significant job growth.
- Category A:** Highway, street and road improvements to serve economic development projects in any of the following target industries:
1. Agriculture or food processing
  2. Tourism
  3. Forestry
  4. High technology research
  5. Manufacturing
  6. Office centers solely occupied by the owner or not less than 50,000 square feet occupying more than 3 acres of land
- Category B:** Projects that result in the addition of county roads or city or village streets to the state trunkline system, or the construction of a state trunkline on a new location that allows the county road or city or village street to return to its appropriate function.
- Category C:** Projects for reducing congestion on county primary and city major streets within urban counties (a county with a population greater than 400,000).
- Category D:** Projects in rural counties (a county with a population of 400,000 or less) for the improvement of county rural primary roads and major streets in cities and villages with a population of 5,000 or less to create an all-season road network.
- Category E:** Projects for construction or reconstruction of roads in counties in which a national lakeshore or national park is located, or a county in which 34% of more of all the land is commercial forest land.
- Category F:** Projects for county roads and city and village street improvements on the Federal Aid to Urban System in rural counties (a county with a population of 400,000 or less).

# Goals and Objectives

# The Budget Process

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## **Preparation**

The preparation of the annual Road Commission for Oakland County Budget is a process requiring intense preparation and analysis. This preparation involves the review of all RCOC resources to determine the amount of funds available to meet the goals, objectives and services for the following year.

## **Budget Calendar**

It begins with the financial planning process in late December; then, in early April, a budget message is sent to all departments by the Managing Director setting the guidelines for the following year's budget.

Next, Budget hearings are held with each department director to discuss departmental goals and objectives and the ability to achieve them during the next fiscal year.

## **Public Hearing**

The Uniform Budgeting and Accounting Act requires the holding of an annual public hearing on the proposed Road Commission Budget and Road Improvement Program for the following fiscal year (page vii of this document). It is at the public hearing where interested citizens and other parties can discuss the proposed Budget.

## **Adoption**

Following adoption by the Board, amendments are made to the Budget during the fiscal year by way of the appropriation transfer as outlined in the Board of Road Commissioners' resolution (page iv of this document).

## **Method**

This Budget uses the modified accrual basis of accounting.

# Goals and Objectives

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## **Vision Statement**

The Road Commission for Oakland County, although facing serious financial challenges, remains committed to the following vision:

**"QUALITY LIFE THROUGH GOOD ROADS  
ROAD COMMISSION FOR OAKLAND COUNTY -- WE CARE"**

## **Mission Statement**

The strategic focus -- the mission -- of the organization is to fulfill the needs of the community by providing:

- Safe and convenient roads
- Responsive and dependable service
- Respect for the environment
- Sensitivity to community concerns
- Sound financial management

It is also the mission of RCOC to work together to provide:

- A cooperative work environment
- Opportunities for learning and growth
- Respect for the dignity of each individual
- Fair and equitable dealings

Together with the vision statement, the mission statement provides the focus from which all goals, objectives and actions of RCOC should transpire.

The strategic planning process has brought about changes in RCOC goals and objectives. This new strategic focus is reflected in the budget process of the organization.

# Needs and Strategies

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## **CUSTOMER NEEDS**

To identify the transportation needs of the local communities, the Road Commission bi-annually holds strategic planning meetings with community officials. These meetings provide an effective forum for expressing road improvement needs, currently estimated to exceed \$1.1-billion. Community officials' requests are then analyzed and prioritized into four distinct areas of concern:

### **The Condition of Gravel Roads**

Many communities served primarily by gravel roads continue to experience accelerated development. Dramatic increases in traffic volume seriously threaten the structural integrity of the gravel road system. Gravel road maintenance cycles once adequate on these roads are no longer sufficient.

However, gravel roads will not be graded more frequently unless additional funding for operations becomes available, although the 1993 Budget includes funding for the installment purchase of one grader. This grader is necessary to retain the current level of service on gravel roads.

Very little gravel road paving is anticipated during the next year. The majority of gravel road paving done in 1993 will be at the initiative of local communities. In addition, some developers provide paving for their own projects.

### **The Safety, Capacity and Condition of Paved Roads**

Increased travel, increasing age and limited funding combine to reduce the serviceability of paved county roads. Preserving the massive investment in the existing paved road system and continuing to expand this infrastructure to relieve mounting congestion are critical to the future of all Oakland County communities.

A Pavement Management System was purchased by the Road Commission in 1986. It is a personal-computer-based program used to assist in identifying cost-efficient strategies for rehabilitating and maintaining our paved primary and mile-type local roads.

Data describing pavement and road base conditions are entered into the system and a present status summary is prepared. The summary indicates which road segments on the paved system are in the best and worst condition based on the pavement quality index (PQI) measure assigned to each segment by the Pavement Management



# Needs and Strategies

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System. The system can provide status summaries sorted by a number of segment indices. Demand maintenance and needs analysis studies can also be performed using the system.

During 1993, there will be various programs implemented either by the Highway Maintenance or Engineering Departments to address various pavement conditions. Even though the proposed program does not address all the needs as shown in the Pavement Management System, it is a systematic attempt to improve the entire paved network by applying the appropriate remedies or repairs based on the pavement condition.

The 1993 Road Improvement Program contains monies for improvement of paved roads, mainly for capacity and safety improvements with some funding earmarked for improvement of pavement conditions.

## **Traffic Management System**

In many locations, innovative traffic management systems can provide a desirable alternative to capacity improvements. Where rights of way are narrow and setbacks to structures shallow, improved traffic management can provide added road capacity without major community disruption and relocation. New technologies, such as the Intelligent Vehicle Highway System (IVHS) now being implemented, promise even greater safety and efficiency.

The Road Commission has been able to attract over \$12-million from county, state and Federal sources in 1992 to deploy this Advanced Traffic Management System (ATMS) in the city of Troy. This funding is specifically allocated to the IVHS project and not available for day-to-day operations.

The IVHS project is comprised of the Sydney Coordinated Adaptive Traffic System (SCATS), using autoscope video imaging for detection of traffic conditions, and the Ali-Scout driver information system. During Fiscal Year 1992, the Road Commission deployed SCATS at 28 intersections and autoscope at 23 intersections.

## **Improved Road Drainage Systems**

Inadequate road drainage is a widespread concern affecting both paved and gravel roads. Poor drainage not only threatens the integrity of the road, but can also pose a safety hazard.

# Needs and Strategies

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The Fiscal Year 1993 Road Improvement Program includes \$1.3-million for drainage improvements and bridges. It is anticipated that a drainage structure information management system will be developed and implemented in the near future. The Road Commission will continue the successful 50/50 matching drainage program with local units of government.

## Summary

Although the Road Commission's operations have been organized around the functional distinctions of highway design, traffic engineering, construction and road maintenance, new emphasis is being placed on the foregoing areas of concern expressed by community officials. These concerns cross departmental boundaries, enabling a more comprehensive team approach to solving problems at the Road Commission. It is intended this strategic focus will help the Road Commission for Oakland County to realize its vision of "Quality Life Through Good Roads."

## STRATEGIES FOR MEETING CUSTOMER NEEDS

The operating departments have identified the following strategies related to the four areas of concern expressed by community officials. These strategies are outlined below by area of concern.

## Gravel Road Strategies

The gravel road concerns of community officials have generated the following strategies by the operating departments:

- a. Coordinate gravel road grading and dust control activities.
- b. Review current grading practices.
- c. Implement a road grading training program.
- d. Review current specifications for gravel road materials and design.
- e. Identify demonstration project possibilities utilizing different materials and designs.
- f. Reexamine the engineering requirements associated with approach paving projects.
- g. Develop a gravel road information system, similar to the pavement management system in use for paved roads.
- h. Evaluate accident data for gravel roads to determine appropriate countermeasures.
- i. Improve the condition of equipment used to maintain gravel roads.
- j. Develop a long-range gravel road improvement plan consistent with the development goals of the communities.
- k. Establish speed controls on gravel roads.

# Needs and Strategies

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1. Encourage cooperative funding with local governmental units and the private sector for upgrading gravel roads.

## **Paved Road Strategies**

The concerns of community officials regarding the preservation of the paved road system are addressed by the following strategies:

- a. Continue to use the pavement management system to establish priorities and treatment alternatives for paved road preservation projects.
- b. Implement regular programs of paved road preservation activities in the Road Improvement Program.
- c. Review current paved road maintenance practices with emphasis on innovative approaches for paved road preservation and maintenance administration.
- d. Evaluate the paved road system for areas of traffic congestion, and explore low-cost, innovative approaches for improving mobility.
- e. Continue to incorporate traffic accident countermeasures into road preservation projects.
- f. Improve aesthetic value of roadsides by recruiting volunteer groups for litter control activities through funding an "Adopt-a-Road" program.

## **Traffic Management Strategies**

The traffic management concerns expressed by community officials focused on traffic signal installation, traffic signal maintenance and traffic signal optimization. They are addressed by the following strategies:

- a. Develop a traffic signal management information system to monitor traffic conditions, track signal equipment and parts inventories, and monitor trouble calls and routine maintenance.
- b. Increase traffic volume counts taken on a routine basis.
- c. Continue to apply for Federal aid for traffic signal modernization and optimization.
- d. Continue to review new software developments for optimal signal timing.
- e. Improve facilities for signal equipment repair and fabrication to minimize downtime.
- f. Improve the troubleshooting capabilities of the Traffic-Safety Department's signal crews.
- g. Monitor and evaluate the advanced traffic management system (ATMS) demonstration project in Troy and expand county-wide as funding becomes available.

# Needs and Strategies

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## Drainage System Strategies

- h. Continue to evaluate new technologies for advanced traffic management systems.

The road drainage concerns expressed by the community officials encompass both the gravel road system and the paved road system.

In response to these concerns, the following strategies have been identified:

- a. Develop a drainage structure information system to identify and rank locations where road drainage is inadequate.
- b. Evaluate the adequacy of existing drainage maintenance equipment and usage for possible acquisitions, redistribution to different maintenance districts, and improved scheduling.
- c. Investigate the correlation between problematic drainage locations and accident and environmental data to determine priorities and countermeasures.
- d. Encourage cooperative funding of ditching and drainage improvements.
- e. Develop a county-wide roadway drainage plan.

## Summary

While it is evident that the departments have emphasized the four areas of concern expressed by community officials, expenditures are constrained by funding limitations, and changes in the work environment are needed.

# Needs and Strategies

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## **STRATEGIES TO IMPROVE THE WORK ENVIRONMENT**

Over the years, the Road Commission has been able to identify many areas for improving the work environment. These needs have been reflected in the Road Commission's mission statement and strategic goals.

Employees have expressed the need for a cooperative work environment, the opportunity for learning and growth, mutual respect, recognition and fair and equitable dealings.

In response to these needs, the Road Commission has implemented a number of programs, including Positive Discipline, an Affirmative Action Program, an Employee Assistance Program, a Position Classification Study, a Leadership Training Program and Department Level Strategic Planning involving employees at all levels within the organization.

These programs are augmented by the ongoing efforts of the strategic planning process, as participants wrestle with strategies for empowering employees, building trust, strengthening employee skills and improving communication.

# Summary Table 1

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## REVENUE AND EXPENDITURES

Fiscal Year Ending 9/30/93

### Revenue

Revenue	\$68,063,000	
Proceeds from Long Term Debt	2,400,000	
<b>Total Revenue</b>		<b>\$70,463,000</b>

### Expenditures

Operating Expenditures	\$51,796,881	
Road Improvement Program	<u>18,666,119</u>	
<b>Total Expenditures</b>		<b>\$70,463,000</b>

# ROAD COMMISSION for OAKLAND COUNTY REVENUE BY SOURCE 1993

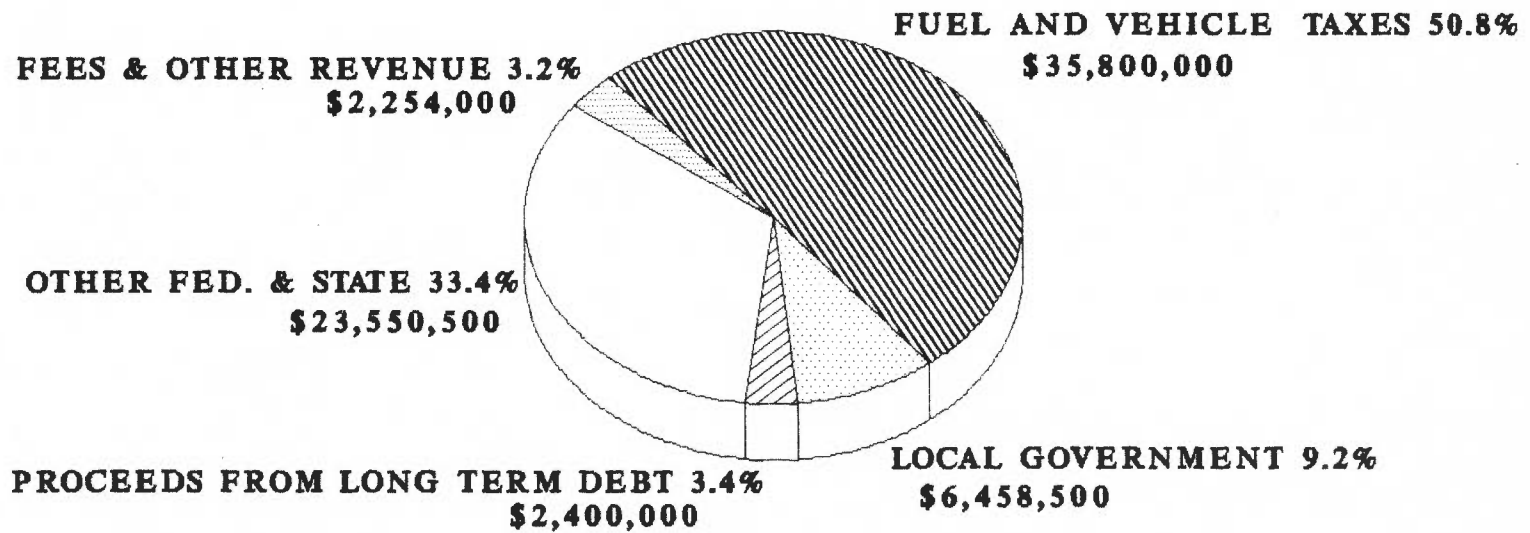


Figure 1

COMPARATIVE SUMMARY OF REVENUE

	1991 Actual Fiscal Year Ended 9/30/91	1992 Budget as Adopted 9/18/92	Estimate Fiscal Year Ending 9/30/92	1993 Budget Fiscal Year Ending 9/30/93
Fuel and Vehicle Taxes	\$33,519,337	\$33,750,000	\$34,180,000	\$35,800,000
Other Federal and State Revenue	18,987,917	22,108,644	17,675,789	23,550,408
Revenue from Local Government	5,391,971	5,683,233	4,523,836	6,458,453
Fees and Other Revenue	1,547,766	1,888,934	2,250,000	2,254,139
Proceeds from Long-Term Debt			1,898,076	2,400,000
<b>Total Revenue</b>	<b>\$59,446,991</b>	<b>\$63,430,811</b>	<b>\$60,527,701</b>	<b>\$70,463,000</b>
Revenue Over/(Under) Expenditures	(464,588)	(540,689)	(564,767)	0
<b>Total Expenditures</b>	<b>\$59,911,579</b>	<b>\$63,971,500</b>	<b>\$61,092,468</b>	<b>\$70,463,000</b>

Summary Table 2



# Budget Exhibit A-1

## 1993 BUDGETED REVENUE BY SOURCE

<u>Revenue Source</u>		<u>1993 Budget</u>
<b>Fuel and Vehicle Taxes</b>		
Engineering	\$ 10,000	
Primary Roads	24,937,000	
Local Roads	4,804,000	
Urban Primary Roads	4,814,000	
Urban Local Roads	<u>1,235,000</u>	
<b>Total Fuel and Vehicle Taxes</b>		<b>\$35,800,000</b>
<b>Federal &amp; State Revenue</b>		
State Maintenance Contracts	7,550,000	
State Non-Maintenance Contracts	300,000	
Federal Aid -- Road Improvement Program	7,554,658	
State Category "C" Funds	7,887,500	
State Category "A" Funds	8,250	
Federal Traffic Improvement Projects	<u>250,000</u>	
<b>Total Federal and State Revenue</b>		<b>23,550,408</b>
<b>Revenue from Local Government</b>		
Contributions from Townships	907,777	
Contributions from Cities	2,315,176	
County Contributions	1,265,500	
Other Contributions including work orders	675,000	
Traffic Signal Maintenance	865,000	
S.A.D. Engineering & Administration	<u>430,000</u>	
<b>Total Revenue from Local Government</b>		<b>6,458,453</b>
<b>Fees and Other Revenue</b>		
Revenue for IVHS Services Performed	525,000	
Interest Earned	600,000	
Sundry Revenue	17,139	
Sale of Maps & Plans	7,000	
Permit Fees	250,000	
Inspection Charges	250,000	
Calcium Chloride Revenue	525,000	
Purchase Discount	15,000	
Proceeds from Disposal of Equipment	<u>65,000</u>	
<b>Total Fees and Other Revenue</b>		<b>2,254,139</b>
Proceeds from Long-Term Debt	2,400,000	<b>2,400,000</b>
<b>Total Revenue and Proceeds from Long-Term Debt</b>		<b>\$70,463,000</b>

1993 ROAD IMPROVEMENT PROGRAM

SOURCES OF FUNDING

<u>Description</u>	<u>Federal Aid, "A" &amp; "C" Funds</u>	<u>City Share</u>	<u>Township Share</u>	<u>County Share</u>	<u>RCOC Share</u>	<u>Totals</u>
Safety Widening	\$4,594,250	\$687,000	\$ 57,000	\$254,250	\$489,750	\$6,082,250
Safety Intersections	275,000	73,750	18,750	0	117,500	485,000
Pave Gravel Roads	240,000	0	0	0	60,000	300,000
Tri-Party Program	0	250,000	250,000	500,000	500,000	1,500,000
Major Resurfacing with Safety (RRR)	500,000	0	88,000	0	102,000	690,000
Bridges and Bridge Restoration	0	0	35,000	0	35,000	70,000
Contract Maintenance Bridge Mgmt.	0	10,000	0	0	10,000	20,000
Drainage Improvements	0	12,500	12,500	0	25,000	50,000
Subtotal:	\$5,609,250	\$1,033,250	\$461,250	\$754,250	\$1,339,250	\$9,197,250

1993 Completion of 1992 Projects in Progress:

Safety Widening	\$8,500,000	\$ 886,250	\$ 26,250	0	\$1,012,500	\$10,425,000
Pave Gravel Roads	60,000	0	0	0	20,000	80,000
Bridges and Bridge Restoration	697,750	95,000	136,125	0	231,125	1,160,000
Tri-Party	0	250,000	250,000	500,000	500,000	1,500,000
Other	583,408	50,676	34,152	11,250	118,633	798,119
Subtotal:	\$9,841,158	\$1,281,926	\$446,527	\$511,250	\$1,882,258	\$13,963,119

Total 1993 Road Improvement Program:	\$15,450,408	\$2,315,176	\$907,777	\$1,265,500	\$3,221,508	\$23,160,369
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Special Assessment Districts:						2,325,000
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<b>GRAND TOTAL:</b>						<b>\$25,485,369</b>
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# RCOC REVENUE SOURCES 1982 - 1991

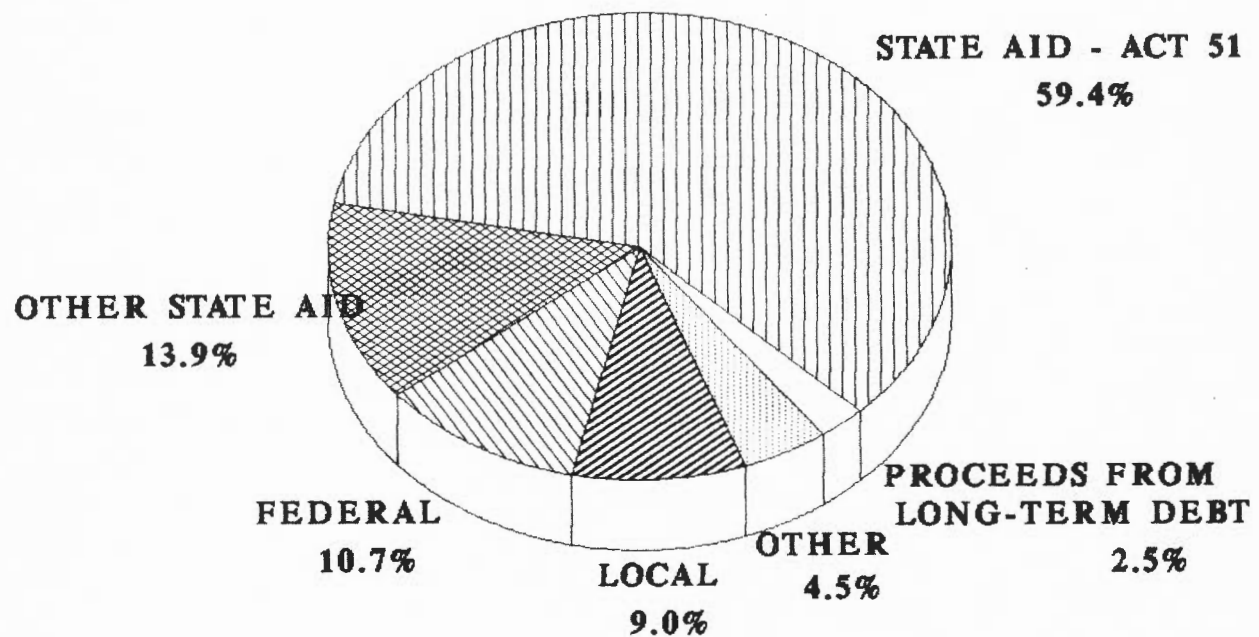


Figure 2

# Summary of Revenue

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Although the nature of road funding in the future remains uncertain, the Road Commission remains committed to maintaining fiscal stability, integrated work plans, and coordinated budgets with minimal negative impact on customer satisfaction.

## **Federal Revenue**

Certain Oakland County roads are designated by the Federal government as eligible for construction assistance. Federal revenue remains an indispensable contribution to the Road Commission.

The Intermodal Surface Transportation Efficiency Act of 1991 provides for a fifty percent (50%) increase in Federal funding to the State of Michigan. It also provides for more flexibility in transferring funds to areas and programs where needs are greatest, a provision that will greatly benefit Oakland County.

The Road Commission anticipates continued funding for the Intelligent Vehicle-Highway System (IVHS) program. A total of \$15-million in Federal funding has been requested for Fiscal Year 1993. Since this funding has not yet been appropriated, it is not included in the IVHS Program Fund Budget on page 107. Similar amounts will be required and requested in subsequent years.

## **State Revenue**

While the Road Commission receives revenue from multiple sources, most of which are designated for specific projects or programs, allocations from the Michigan Transportation Fund (MTF) represent the major source and are primarily targeted for operating needs. Figure 3 on page 18 represents the ten-year history of MTF revenue and Fiscal Years 1992 and 1993 budgeted revenue.

These allocations are generated through fees paid by consumers when purchasing gasoline, diesel fuel and license plates and from other auto- and truck-related fees.

While the fuel tax rate of 15 cents per gallon has remained constant since 1984, the fuel efficiency of vehicles has steadily improved, decreasing the fuel tax collected.

# Summary of Revenue

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Funding proposed by the Governor and bills introduced in the Legislature are under review. These include the issuance of bonds to augment existing state funds and to match available Federal funds authorized for the state in the Intermodal Surface Transportation Efficiency Act of 1991.

## Local Revenue

Local governments are another important source of revenue to the RCOC. Approximately 9% of road improvement costs are borne at the local level, often being matched by other RCOC revenue to achieve more significant improvements than could be undertaken by either party alone.

Cities and villages also rely on the fuel user fee, and have experienced similar declines in revenue limiting road improvement initiatives at the local level. Reduced revenue sharing at the local level also contributes to limitations in road improvement funding.

In November, 1989, the Road Commission submitted a proposal to the County Board of Commissioners for a road funding partnership. That program called for a yearly contribution of \$10-million from the County Board of Commissioners for a period of ten years.

The County Board chose instead to fund a \$2-million pilot project to deploy an Advanced Traffic Management System (ATMS) in the city of Troy. This contribution was instrumental in attracting a \$10-million congressional appropriation for expansion of the project in 1992.

The Road Commission plans to continue to seek County Board support for the remainder of the ten-year county partnership program.

In addition, the Road Commission has been a participant in legislative initiatives to establish developer impact fees and other sources of local road funding. The Road Commission will continue to encourage greater participation from local units of government and private sector sources for road improvements and maintenance.

# Summary of Revenue

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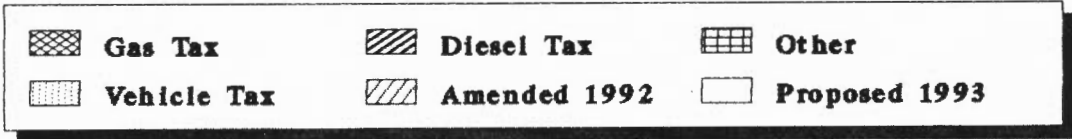
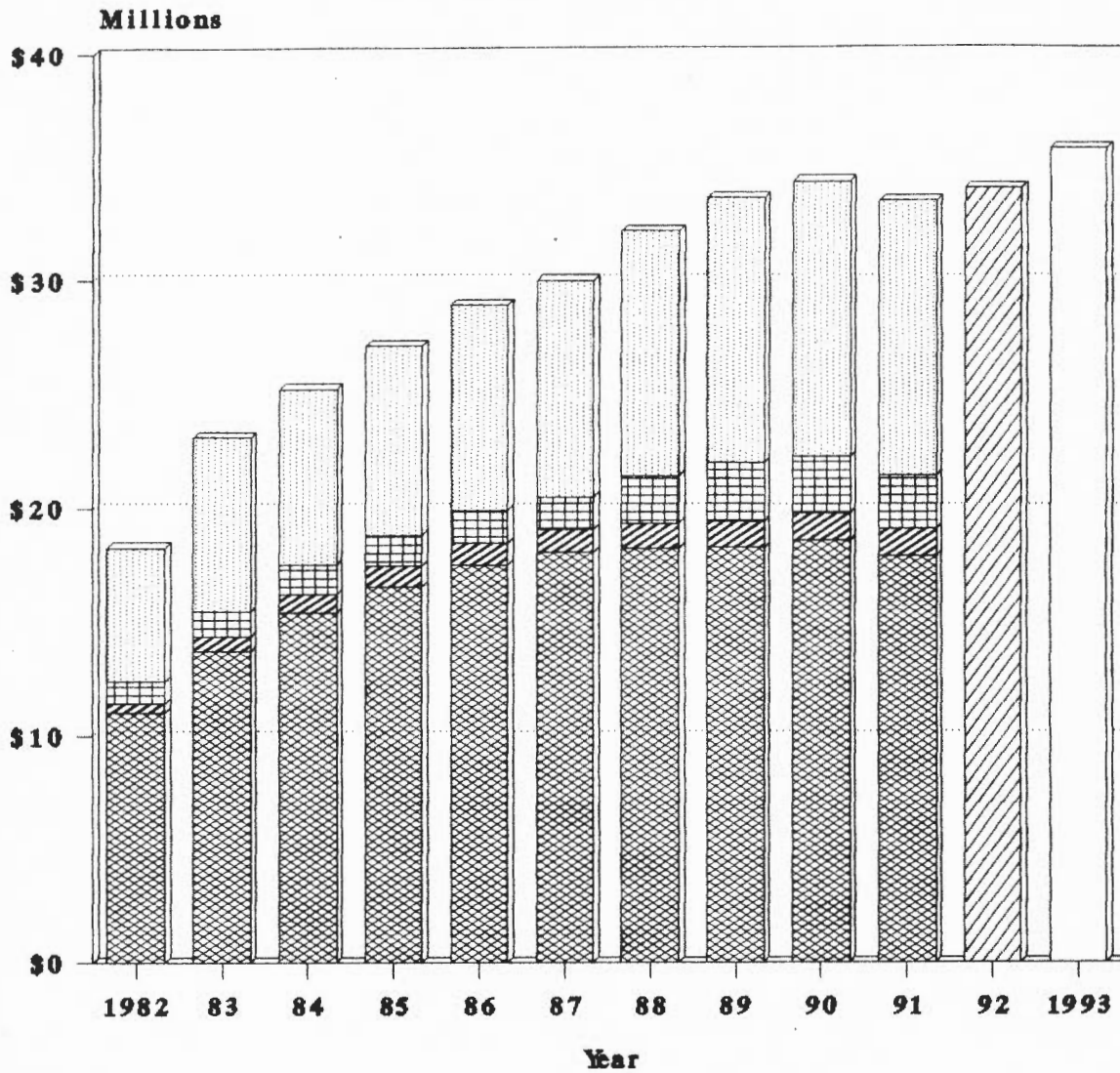
**Fees and Other Revenue** Some Road Commission activities generate revenue from services rendered which are used to lessen the dependence on outside sources for funding. Among these are:

- Revenue for IVHS services performed
- The Subdivision Improvement Division, responsible for administering special assessment districts and subdivision improvement projects
- The Permit Division, securing fees for drive/approach permits, engineering inspections, overweight and oversized vehicles, etc.
- Contract highway maintenance for the Michigan Department of Transportation
- Engineering professional services rendered to local governmental units

A final element of this category is revenue generated from interest realized on investments made by the Road Commission.

**Debt** Proceeds from long-term debt of \$2.4-million is budgeted to finance the purchase of road equipment in Fiscal Year 1993.

# Michigan Transportation Fund Revenue History



1982-1983: Calendar Yr.; 1985-1991 Fiscal Year.; 1984: 9 Months (Annualized)  
 1982-1991 Actual; 1992-1993: Budget

Figure 3

# Summary of Revenue

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## Factors Affecting Present and Future Revenue

Although increased fuel economy is beneficial in conserving domestic oil reserves, reducing dependency on foreign oil, and reducing air pollution, it is seriously impacting Michigan Transportation Fund revenue, RCOC's major source of funding (see chart on page 18).

The Road Commission MTF allocation is determined by a formula reflecting Oakland County's road mileage by road type, population characteristics and vehicle registrations.

Increased travel resulting from growth and affluence is not being accompanied by similar increases in fuel consumption. The Michigan Department of Transportation projects a modest increase in travel this year will be offset by improved fuel economy of those traveling. The net result will be an increase in road use with no increase in revenue.

As the number of vehicles on the roads increases, it is imperative that the structural integrity of the roads be maintained to protect the investment in the infrastructure. Currently, the backlog of critical needs, as determined by the communities during the 1991-92 Strategic Planning Meetings, has reached over \$1.1-billion dollars in Oakland County.

Further compounding the problem is the automotive industry's pursuit of alternative energy sources, such as electricity and solar energy. New power sources will require new methods of assessing road usage and use taxes.

Although efforts continue to bring user fees in line with current conditions, there is little hope this can be accomplished in Fiscal Year 1993.



# ROAD COMMISSION for OAKLAND COUNTY ALLOCATION of FUNDS 1993

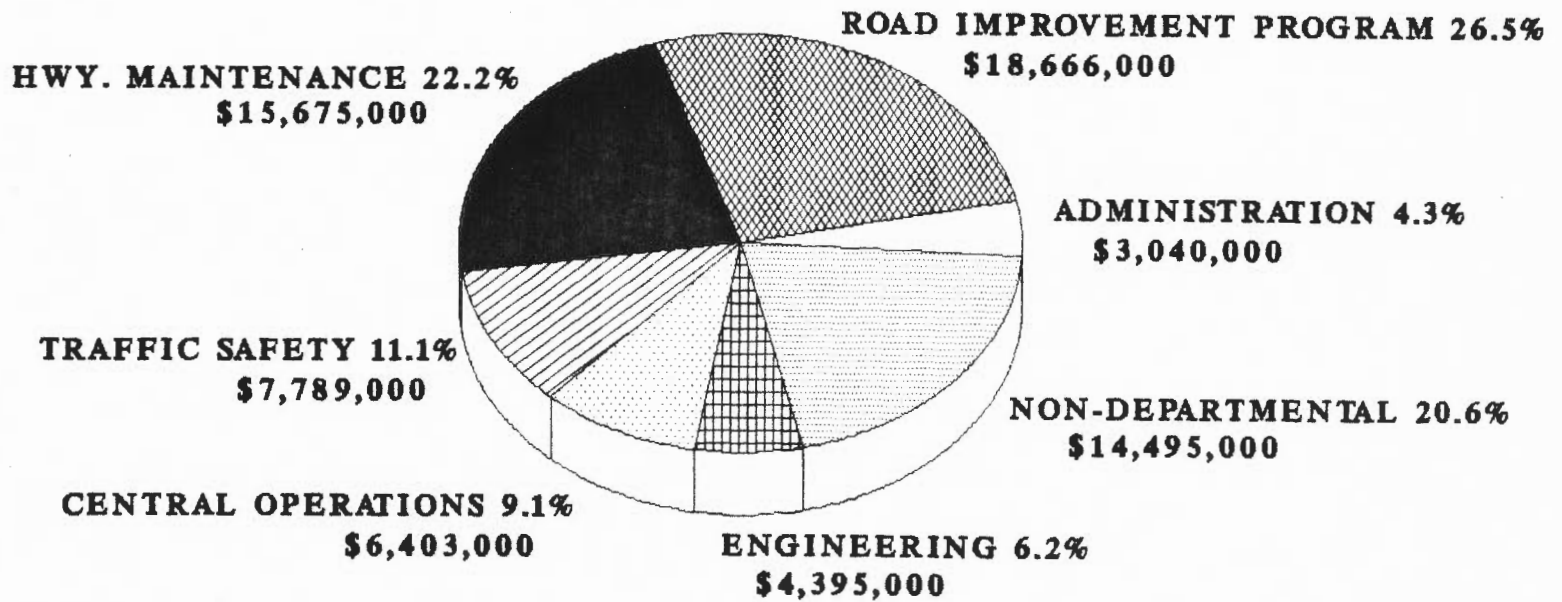


Figure 4

COMPARATIVE SUMMARY OF EXPENDITURES

<u>Department</u>	<u>1991 Actual Fiscal Year Ended 9/30/91</u>	<u>1992 Budget As Adopted 9/18/91</u>	<u>Estimate Fiscal Year Ending 9/30/92</u>	<u>1993 Budget Fiscal Year Ending 9/30/93</u>
Board of Road Commissioners	\$ 101,417	\$ 108,100	\$ 108,100	\$ 111,100
Managing Director	642,136	672,174	571,574	636,405
Planning and Development	731,372	736,507	1,114,697	704,929
Citizen Services	186,461	201,557	172,045	200,113
Finance	569,391	583,276	592,303	616,132
Legal	418,022	430,664	429,184	455,757
Personnel	311,238	327,064	281,564	315,667
Central Operations	5,719,774	5,977,315	6,253,756	6,403,386
Engineering	4,474,002	4,978,468	4,933,406	4,395,086
Traffic Safety	6,589,781	6,547,329	7,086,873	7,788,553
Highway Maintenance	13,803,183	12,994,755	14,783,771	15,675,182
Non-Departmental	12,767,375	14,003,400	13,765,195	14,494,571
<b>Total Operating</b>	<b>\$46,314,152</b>	<b>\$47,560,609</b>	<b>\$50,092,468</b>	<b>\$51,796,881</b>
Road Improvement Program Contractor Payments & ROW	13,597,427	16,410,891	11,000,000	18,666,119
<b>TOTAL EXPENDITURES</b>	<b>\$59,911,579</b>	<b>\$63,971,500</b>	<b>\$61,092,468</b>	<b>\$70,463,000</b>

# Budget Exhibit A-3

## 1993 DEPARTMENTAL BUDGET -- APPROPRIATION BY OBJECT Compared to 1991 Actual & 1992 Estimate

	1991 <u>Actual</u>	1992 <u>Estimate</u>	1993 <u>Budget</u>
Board of Road Commissioners			
Personal Services	\$ 29,767	\$ 31,000	\$ 31,000
Contracted Services	49,760	52,000	55,000
Materials, Supplies & Parts	513	400	400
Other Expenses	21,377	24,700	24,700
Capital Outlay	0	0	0
	<u>\$101,417</u>	<u>\$108,100</u>	<u>\$111,100</u>
Managing Director			
Personal Services	\$418,944	\$407,174	\$430,230
Contracted Services	142,740	92,400	103,400
Materials, Supplies & Parts	7,722	8,000	9,050
Other Expenses	63,697	64,000	93,725
Capital Outlay	9,033	0	0
	<u>\$642,136</u>	<u>\$571,574</u>	<u>\$636,405</u>
Planning & Development			
Personal Services	\$508,435	\$524,944	\$534,829
Contracted Services	182,807	159,820	137,400
Materials, Supplies & Parts	16,942	27,500	22,000
Other Expenses	8,748	3,400	8,700
Capital Outlay	14,440	399,033	2,000
	<u>\$731,372</u>	<u>\$1,114,697</u>	<u>\$704,929</u>
Citizen Services			
Personal Services	\$181,535	\$168,535	\$196,593
Contracted Services	0	0	0
Materials, Supplies & Parts	2,115	3,480	3,480
Other Expenses	0	30	40
Capital Outlay	2,811	0	0
	<u>\$186,461</u>	<u>\$172,045</u>	<u>\$200,113</u>
Finance			
Personal Services	\$528,615	\$553,713	\$573,512
Contracted Services	6,884	10,190	10,765
Materials, Supplies & Parts	6,113	9,000	8,000
Other Expenses	5,442	1,400	1,455
Fixed Charges	22,337	18,000	18,800
Capital Outlay	0	0	3,600
	<u>\$569,391</u>	<u>\$592,303</u>	<u>\$616,132</u>
Legal			
Personal Services	\$371,201	\$385,844	\$414,657
Contracted Services	20,107	12,000	12,000
Materials, Supplies & Parts	4,574	6,000	5,000
Other Expenses	22,140	23,600	24,100
Capital Outlay	0	1,740	0
	<u>\$418,022</u>	<u>\$429,184</u>	<u>\$455,757</u>
Personnel			
Personal Services	\$216,913	\$205,969	\$239,167
Contracted Services	59,874	57,225	57,100
Materials, Supplies & Parts	2,778	4,000	4,000
Other Expenses	31,673	14,370	15,400
Capital Outlay	0	0	0
	<u>\$311,238</u>	<u>\$281,564</u>	<u>\$315,667</u>

# Budget Exhibit A-3

## 1993 DEPARTMENTAL BUDGET -- APPROPRIATION BY OBJECT Compared to 1991 Actual & 1992 Estimate

(Continued)

	1991 <u>Actual</u>	1992 <u>Estimate</u>	1993 <u>Budget</u>
Central Operations			
Personal Services	\$2,507,351	\$2,601,802	2,727,936
Contracted Services	121,807	138,970	136,300
Materials, Supplies & Parts	2,322,224	2,347,350	2,153,525
Other Expenses	26,953	22,455	31,500
Fixed Charges	602,352	645,338	644,000
Capital Outlay	139,087	497,841	710,125
	<u>\$5,719,774</u>	<u>\$6,253,756</u>	<u>\$6,403,386</u>
Engineering			
Personal Services	\$3,091,249	\$3,369,641	\$3,432,246
Contracted Services	1,238,149	1,461,505	788,450
Materials, Supplies & Parts	57,440	54,560	60,150
Other Expenses	13,169	22,430	21,240
Fixed Charges	956	500	2,500
Capital Outlay	73,039	24,770	90,500
	<u>\$4,474,002</u>	<u>\$4,933,406</u>	<u>\$4,395,086</u>
Traffic Safety			
Personal Services	\$3,535,513	\$3,618,192	\$4,006,618
Contracted Services	1,623,490	1,672,312	1,734,400
Materials, Supplies & Parts	1,148,582	1,100,246	1,161,885
Other Expenses	20,189	24,850	28,850
Fixed Charges	73,491	100,000	88,000
Capital Outlay	188,516	571,273	768,800
	<u>\$6,589,781</u>	<u>\$7,086,873</u>	<u>\$7,788,553</u>
Highway Maintenance			
Personal Services	\$7,696,843	\$7,787,566	\$7,911,057
Contracted Services	1,917,206	2,300,000	2,481,510
Materials, Supplies & Parts	3,366,531	3,150,000	3,294,300
Other Expenses	32,483	29,065	34,515
Fixed Charges	188,284	136,000	160,000
Capital Outlay	601,836	1,381,140	1,793,800
	<u>\$13,803,183</u>	<u>\$14,783,771</u>	<u>\$15,675,182</u>
Non-Departmental			
Risk Management	\$3,200,795	\$3,353,700	\$3,216,450
Employee Benefits	7,777,500	8,157,940	8,488,900
Other	17,662	42,000	42,000
Inventory Adjustments	123,604	125,000	125,000
Road Commission Contingency			492,201
Debt Service	1,647,814	1,986,555	2,430,020
Contributions to IVHS Program	0	100,000	0
Personnel Turnover (Attrition)			(300,000)
	<u>\$12,767,375</u>	<u>\$13,765,195</u>	<u>\$14,494,571</u>
Road Improvement Program (Contractor Payments & ROW)	13,597,427	11,000,000	18,666,119
<b>Total Operating Funds</b>	<u><b>\$59,911,579</b></u>	<u><b>\$61,092,468</b></u>	<u><b>\$70,463,000</b></u>

# Budget Exhibit A-4

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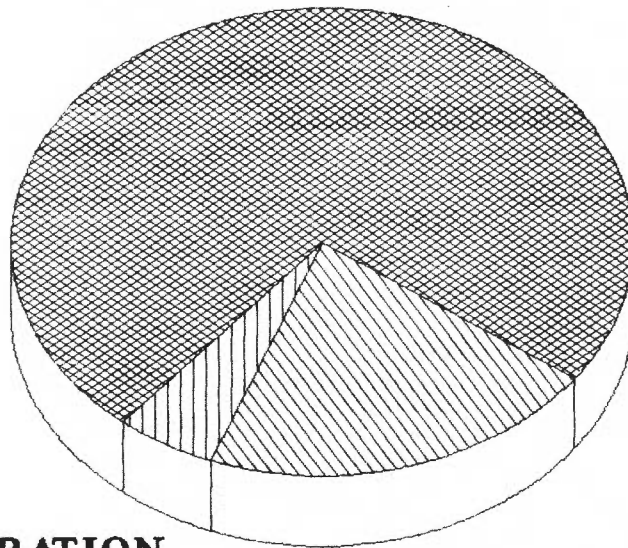
## APPROPRIATION SUMMARY -- OPERATING BY OBJECT

Salaries	\$20,197,845
Contracted Services	5,516,325
Materials, Supplies & Parts	6,849,290
Other Expenses	4,032,376
Fixed Charges	11,832,220
Capital Outlay	3,368,825
<b>TOTAL</b>	<b>\$51,796,881</b>

# RCOC EXPENDITURES By Activity 1982 - 1991

**OPERATIONS & ROAD IMPROVEMENTS**

**73.83%**



**ADMINISTRATION**

**5.25%**

**NON-DEPARTMENTAL**

**20.92%**

**Figure 5**

# Summary of Expenditures

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It is now time to look at the other side of the budget coin, the Expenditures.

The Road Commission budgeting process is accomplished on a departmental basis. In large measure these departments closely parallel major cost categories associated with road improvements, traffic safety and maintenance.

## **OPERATING DEPARTMENTS AND IMPROVEMENTS**

### **Central Operations**

The Central Operations Department, accounting for approximately 9% of total RCOC yearly expenditures, will maintain 73 authorized positions in Fiscal Year 1993.

Fleet Maintenance, Buildings and Grounds, and Purchasing comprise the Central Operations Department activities.

Fleet maintenance and repair are crucial to decisions regarding capital expenditures and preservation of levels of service. The state of readiness of the equipment fleet is one of three interrelated elements in the effective delivery of services to the customer. The other two elements are manpower and material requirements.

A reduction in any one of these three elements significantly affects the remaining two. If vehicles are not available, manpower and materials cannot be utilized. If materials are reduced, vehicles and manpower are not used to capacity. Reduction in the labor force leaves equipment underutilized and materials undelivered.

The Road Commission has averaged about \$1.5-million per year for fleet modernization and replacement in the last decade. In the 1993 budget, \$2.7-million has been earmarked for road equipment replacement. This will be partially financed by borrowing \$2.4-million in Fiscal Year 1993.

While these expenditures have resulted in slowing fleet deterioration, the readiness of the Road Commission equipment fleet remains less than desirable. In response, Central Operations has developed innovative practices to maintain fleet readiness.

# Summary of Expenditures

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For example, an aggressive preventive maintenance program has been initiated to extend equipment service lives. Also, demolished and unrepairable equipment is salvaged for all recoverable parts. This latter strategy has been so effective that, in Fiscal Year 1991, the annual auction of used equipment was cancelled for lack of serviceable items to auction.

## Engineering

The Engineering Department will have an authorized complement of 84 employees in Fiscal Year 1993.

Engineering and road improvement activities account for approximately 33% of the Road Commission's annual expenditures and have kept pace with the availability of Federal and local funding.

The types of projects in the Road Improvement Program include pavement widenings to provide for center left-turn lanes, changing two-lane pavements into either five lanes or four-lane boulevards, replacing structurally defective bridges, paving gravel roads, and a Tri-Party Program, among others.

The Tri-Party Program, consisting of 1/3 matching funds from the county, the local unit of government and RCOC, is comprised of safety projects throughout the county including passing lanes, paved approaches, regravelling, and other miscellaneous improvements.

As the current economic situation has deteriorated, there are reports from other county road agencies that it has become increasingly difficult to match available funds for road improvement purposes. Should this occur in Oakland County, a major supplemental revenue source would be lost.

## Traffic Safety

The Traffic Safety Department had 104 authorized positions in Fiscal Year 1992. That number has increased to 110 for Fiscal Year 1993 with the implementation of the Intelligent Vehicle-Highway System (IVHS).

Traffic Safety includes costs for installing and maintaining traffic signals, traffic signs, guardrail and other traffic control and safety devices.



# Summary of Expenditures

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In a typical year, the Traffic Safety Department maintains about 100,000 traffic signs - replacing about 6,750 of them, responds to over 4,500 traffic signal trouble calls, replaces approximately 40,000 traffic signal lamps, and repairs or installs approximately four miles of new guardrail. Paying for the power necessary to operate the traffic signal system is an additional expense and, in Fiscal Year 1991, cost \$752,000.

During Fiscal Year 1992, the Road Commission deployed SCATS at 28 intersections in the city of Troy and autoscopes at 23 intersections (see page 84). In addition, the Ali-Scout beacon system was deployed at 12 locations and installed in 18 vehicles.

SCATS will be installed at 67 additional intersections in Troy by June, 1993 using a \$10-million Congressional demonstration grant appropriated in Fiscal Year 1992. Thirty more beacon sets and 60 vehicles will also be added to the system.

A \$15-million Federal demonstration grant, scheduled for Congressional approval in October, 1992, is expected to fund more than 120 intersections in Auburn Hills, Rochester Hills and Pontiac, 70 additional beacons and 1,000 vehicles. Upon approval, the 1993 budget will be amended to reflect this increase.

Fiscal Year 1993 will also see the development of pedestrian detection using autoscope, testing and evaluation of new detection techniques, construction of a traffic operations center, integration of the SCATS and Ali-Scout systems and initial work on integrating the IVHS efforts with the MDOT Freeway Operations System.

## **Highway Maintenance**

The Highway Maintenance Department will have an authorized complement of 213 employees in Fiscal Year 1993.

Highway Maintenance expenditures account for approximately 22% of the total costs of the Road Commission. The department is responsible for the maintenance of one of the largest roadway systems in the state. Major activities on approximately 2,400 miles of roadway include surface maintenance (patching, base repair, grading, sweeping, dust control, etc.), roadside maintenance (ditching, brush control and mowing, etc.) and snow removal.

# Summary of Expenditures

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The department annually uses about 9,000 tons of patching materials, 100,000 tons of gravel, and 70,000 tons of snow control salts and sand. The department typically installs a mile of new culvert yearly, and applies approximately 4.6 million gallons of chloride solution to control dust and provide soil stabilization. This department is also the largest user of the Road Commission's fleet of heavy and specialized equipment.

The unpredictability of Oakland County winters sometimes requires additional reserves for overtime and materials. These contingencies make evaluation of trends in maintenance costs more difficult to interpret.

An integral part of our gravel road program is the application of brine for both dust control and road stabilization. We have demonstrated in our Orion garage (District #3), where RCOC currently operates a mineral well, that a liberal application of brine helps to provide a smooth surface between gradings, retains the fine particles for a more uniform and dense riding surface, provides a workable surface for grading during winter months and controls dust.

We have determined that we can recover the cost of a new well in approximately 1-1/3 years. In addition, we will be able to expand our chloride program without additional material costs. This will provide a better gravel road riding surface for users of our gravel road system and improve the quality of life for those residents who live along these roads.

Fiscal Year 1993 includes funding for a brine well in Davisburg (District #2) in order to better maintain the gravelroads and still contain costs.

Projected total costs for road maintenance in Fiscal Year 1993 are expected to be \$15.7 million. The Maintenance Department anticipates cost reductions due to utilizing alternative, less expensive materials and the implementation of cost-cutting work methods and equipment modifications.

## **Non-Departmental**

The non-departmental budget represents approximately 21% of annual costs. This includes the various insurance and self-insurance coverages for the Road Commission (Risk Management), fringe benefits, debt service, and the Road Commission contingency.

## FINANCIAL PICTURE FOR 1993

### A Year of Continued Cost Containment

The program of aggressive cost containment in all cost categories initiated in and continued since Fiscal Year 1991 will continue in Fiscal Year 1993. Cost containment must be a goal of every employee. Personal accountability and commitment are the key to success in achieving goals. Departments will be required to critically re-examine procedures and practices and to identify innovative ways to achieving desired results.

The objective of these reassessments is to identify and contain those costs which, when contained, minimally impact delivery of services and achievement of other strategic goals and objectives. Every effort has been made to achieve fiscal stability without loss of productivity and with minimal impact on service to the customer. A united and aggressive program of cost containment will ensure achievement of desirable goals as well as fiscal stability.

In addition, efforts will continue to generate additional revenue to mitigate reductions. Those offering quick and substantial returns must be pursued without delay since every dollar generated reduces potential negative impacts on operations.

### Evaluating Cost Containment and Revenue Generating Strategies

Strategies which focus on goal achievement must be pursued vigorously, but must also take into consideration rate of return, ease and speed of implementation, organizational impact, and long-term consequences.

Toward this end, the Road Commission is focusing on:

- Monitoring major expenditures for cost-effectiveness
- Reassessing ongoing operations for cost-effectiveness
- Identifying strategies whose implementation will bring quick results in the short-term with minimal detriment to organizational efficiency
- Avoiding disruptive actions that, while cost-efficient, result in inefficiencies

# Overview

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## Identifying Cost

### Containment Strategies

The following cost containment strategies have been identified and are reflected in the Fiscal Year 1993 budget.

- Reassessment of standards and practices
- Achievement of service goals wherever possible by substitution of alternative materials and practices
- Limitation of travel, training, professional services, stationery and office supplies, overtime, seasonal employees, maintenance contracts and insurance premiums whenever practical
- Assumption of greater levels of risk
- Redefinition of the county urbanized area and recertification of roads as urban when appropriate
- Postponement of non-critical road improvement projects

# Summary

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## Outlook

The current fiscal challenges facing the Road Commission for Oakland County do not lend themselves to easy solutions. The Road Commission continues to pursue new sources of revenue. A conservative approach, sustaining an ongoing policy of sound financial management combined with coordinated efforts in cost containment with minimal negative effect on customer satisfaction, is the key to the 1993 Budget.

1993 BUDGET

APPROPRIATION SUMMARY -- SALARIES & WAGES

	<u>Base</u>	<u>Longevity</u>	<u>Overtime</u>	<u>Seasonal</u>	<u>Total</u>
Board of Road Commissioners	\$ 31,000	\$ 0	\$ 0	\$ 0	\$ 31,000
Managing Director	421,304	826	300	7,800	430,230
Planning and Development	515,780	13,049	6,000	0	534,829
Citizen Services	192,309	3,784	500	0	196,593
Finance	543,826	11,286	13,400	5,000	573,512
Legal	404,799	4,858	2,500	2,500	414,657
Personnel	228,160	4,507	500	6,000	239,167
Central Operations	2,417,660	68,076	239,200	3,000	2,727,936
Engineering	2,910,761	152,005	345,000	24,480	3,432,246
Traffic Safety	3,537,808	189,460	275,550	3,800	4,006,618
Highway Maintenance	6,767,884	356,844	782,329	4,000	7,911,057
<b>TOTAL</b>	<b>\$17,971,291</b>	<b>\$ 804,695</b>	<b>\$1,665,279</b>	<b>\$ 56,580</b>	<b>\$20,497,845</b>

# Budget Exhibit A-6

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## 1993 BUDGET

### APPROPRIATION SUMMARY -- FRINGE BENEFITS

Dental Insurance	\$ 285,000
Hospitalization	2,175,000
Life Insurance	105,400
Vision Care Insurance	35,500
Major Medical Insurance	138,000
Retirement	3,300,000
Social Security	1,550,000
Unemployment Insurance	10,000
Workers' Compensation	93,000
Sick Leave Redemption	100,000
Workers' Comp. Self-Insured Expense	*537,500
Prescription Drugs	455,000
Annual Physical Program	10,000
<b>TOTAL</b>	<b>\$8,794,400</b>

\* \$305,500 Included in Department Budgets  
\$232,000 Non-Departmental Appropriation

# Summary of Debt

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## SUMMARY EXPLANATION OF DEBT

The Road Commission for Oakland County borrowed \$2,500,000 in 1984 from the Transportation Bonding Loan Program. This money was used for the intersection of Big Beaver and Rochester Roads. In 1986, \$5,500,000 of Michigan Transportation Fund revenue notes was issued and in 1987, an additional \$4,000,000 of revenue notes was issued. This money was spent on the three "R" road projects (Resurfacing, Restoration, Rehabilitation), which required the highest priority for maintenance. In 1986 and 1987, sixty eight miles of roads received safety improvements and new surfaces. In 1991, \$1,300,000 was budgeted to be borrowed from the Michigan Municipal Bond Authority to purchase road equipment. Funds were received during Fiscal Year 1992.

The borrowing for the Road Commission for Oakland County Special Assessment Districts Fund is to pay for costs incurred in the construction of subdivision streets. Notes are issued to fund this construction. These costs are specially assessed to the owners of the property and reimbursed over a ten year period.

Proceeds from long-term debt of \$2,400,000 has been budgeted in Fiscal Year 1993 for the purchase of road equipment.



# Summary of Debt

## SUMMARY OF FUNDED DEBT FISCAL YEAR ENDING SEPTEMBER 30, 1993

Description of Debt	Fund Servicing Debt	Debt Outstanding 9/30/92	1993 Debt Service Payments	
			Principal	Interest
\$2,500,000 1984 Transportation Bonding Program Loan 10.22%	Road Fund	\$1,570,500	\$ 165,750	\$ 165,134
\$5,500,000 Michigan Transportation Fund Revenue Notes of 1986 5.5%-7.7%	Road Fund	1,650,000	550,000	124,850
\$4,000,000 Michigan Transportation Fund Revenue Notes of 1987B 4.5%-6.4%	Road Fund	2,000,000	400,000	120,000
\$314,801 Bull HN Information Systems 1992 9.98%	Road Fund	239,369	51,615	23,517
\$1,300,000 Michigan Municipal Bond Authority 1992 6%	Road Fund	1,115,000	245,000	66,330
\$183,335 County of Oakland 1992 0%	Road Fund	137,660	34,415	0
\$2,400,000 Equipment Financing 1993 Projection	Road Fund	0	372,240	103,669
<b>Total Road Fund</b>		<b>\$6,712,529</b>	<b>\$1,819,020</b>	<b>\$ 603,500</b>
\$4,000,000 Michigan Transportation Fund Revenue Notes of 1984 6.0%-8.7%	S.A.D. Fund	400,000	400,000	34,800
\$4,000,000 Michigan Transportation Fund Revenue Notes of 1987 3.75%-5.40%	S.A.D. Fund	1,600,000	400,000	84,000
\$4,000,000 Michigan Transportation Fund Revenue Notes of 1989 4.25%-9.25%	S.A.D. Fund	2,400,000	400,000	171,700
<b>Total S.A.D. Fund</b>		<b>\$4,400,000</b>	<b>\$1,200,000</b>	<b>\$ 290,500</b>
		<b>1993 DEBT SERVICE</b>		
		<u>Road Fund</u>	<u>S.A.D. Fund</u>	
Principal		\$1,819,020	\$1,200,000	
Interest		603,500	290,500	
<b>TOTAL DEBT SERVICE</b>		<b>\$2,422,520</b>	<b>\$1,490,500</b>	

ROAD FUND

STATEMENT OF CHANGE IN FUND BALANCE

	<u>Actual Fiscal Year Ended 9/30/91</u>	<u>Before Audit Fiscal Year Ending 9/30/92</u>	<u>1993 Budget Fiscal Year Ending 9/30/93</u>
Beginning Fund Balance	\$ 5,983,437	\$ 5,518,849	\$ 4,978,160
Revenue	59,446,991	63,430,811	70,463,000
Expenditures	59,911,579	63,971,500	70,463,000
Revenue over (under) Expenditures	<u>\$ (464,588)</u>	<u>\$ (540,689)</u>	<u>\$ 0</u>
Ending Fund Balance	*\$ 5,518,849	\$ 4,978,160	\$ 4,978,160

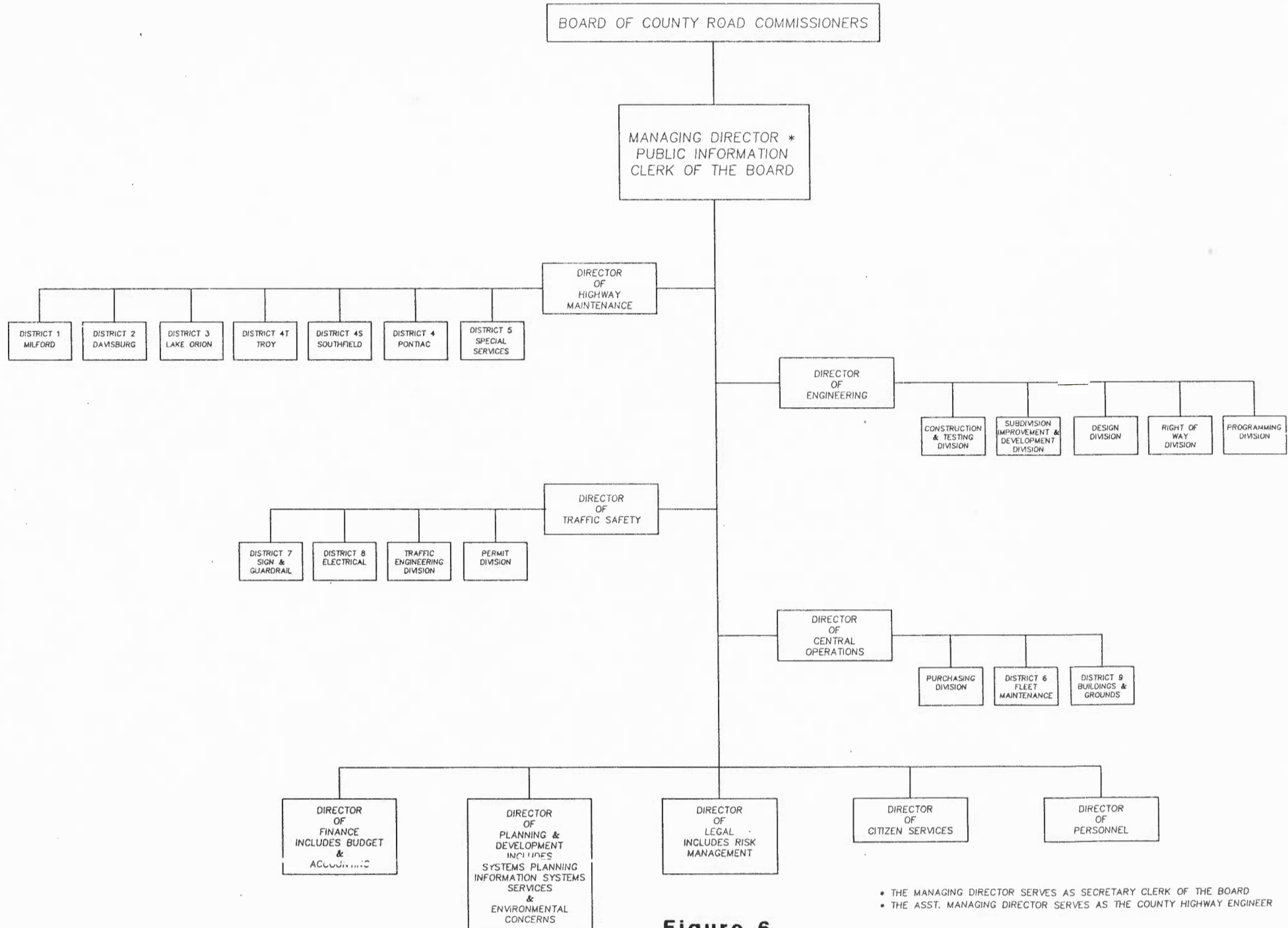
\* Analysis of Ending Fund Balance:

Reserved for 1992 Budget	\$ 540,689
Reserved for long term portion of the provision for self-insured losses and compensated absences	3,764,600
Undesignated	1,213,560

Total 9/30/91

\$5,518,849

# ROAD COMMISSION FOR OAKLAND COUNTY ORGANIZATION STRUCTURE



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**Figure 6**

- THE MANAGING DIRECTOR SERVES AS SECRETARY CLERK OF THE BOARD
- THE ASST. MANAGING DIRECTOR SERVES AS THE COUNTY HIGHWAY ENGINEER

# Authorized Positions



# Authorized Positions

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## History of Budgeted Positions

	<u>1989 Amended Budget</u>	<u>1990 Amended Budget</u>	<u>1991 Amended Budget</u>	<u>1992 Amended Budget</u>
Managing Director	10 <sup>1</sup>	14 <sup>2</sup>	9 <sup>4</sup>	9
Clerk of the Board	4	0 <sup>2</sup>	0	0
Planning & Development	13 <sup>1</sup>	13	13	13
Citizen Services	6	6	6	6
Finance	16	16	16	16
Legal	5	5	10 <sup>4</sup>	10
Central Operations	13	75 <sup>3</sup>	75	73
Personnel	6	6	6	6
Engineering	86	86	87	82
Traffic Safety	104	103	103	104
Maintenance	<u>277</u>	<u>222</u> <sup>3</sup>	<u>222</u>	<u>213</u>
<b>Totals</b>	<b>540</b>	<b>546</b>	<b>547</b>	<b>532</b>

- 1 In 1989, Risk Management was transferred to the Managing Director's Department.
- 2 In 1990, four budgeted positions from the Clerk of the Board were added to the Managing Director's Department.
- 3 The Road Commission reorganized in 1990 combining two divisions from Highway Maintenance (Buildings and Grounds, Fleet Maintenance) with the Purchasing Department to create the Central Operations Department.
- 4 In 1991, Risk Management was transferred to the Legal Department.

Authorized Positions	MANAGING DIRECTOR	PLANNING & DEVELOPMENT	CITIZEN SERVICES	FINANCE	LEGAL	PERSONNEL	CENTRAL OPERATIONS	ENGINEERING	TRAFFIC SAFETY	HIGHWAY MAINTENANCE	TOTAL
Account Clerk				9							9
Accounting Supervisor				1							1
Assistant Accounting Supervisor				1							1
Asst. Mng. Dir., County Hwy. Eng.	1										1
Asst. to Managing Director for Public Information	1										1
Assistant SID Supervisor								1			1
Attorney II					2			1			3
Budget Supervisor				1							1
Chief Atty of Litigation & Loss Mgmt.					1						1
Chief Weighmaster									1		1
Citizen Services Coordinator			1								1
Citizen Services Clerk			4								4
Civil Engineer II								5	3		8
Civil Engineer III								8	4	1	13
Claims Clerk					1						1
Clerk Typist	1						1		3		5
Commission Receptionist	1										1
Computer Programmer		1									1

Authorized Positions	MANAGING DIRECTOR	PLANNING & DEVELOPMENT	CITIZEN SERVICES	FINANCE	LEGAL	PERSONNEL	CENTRAL OPERATIONS	ENGINEERING	TRAFFIC SAFETY	HIGHWAY MAINTENANCE	TOTAL
Computer Technician		1									1
Construction Accountant				1							1
Construction Engineer								1			1
Data Entry Operator		2									2
Deputy Managing Director	1										1
Deputy Secretary-Clerk	1										1
Design Engineer								1			1
Director of Central Operations							1				1
Director of Citizen Services			1								1
Director of Engineering								1			1
Director of Finance				1							1
Director of Highway Maintenance										1	1
Director of Legal					1						1
Director of Personnel						1					1
Director of Traffic Safety									1		1
Director of Planning & Development		1									1
District Clerk							1		1	6	8
District Superintendent							2		2	7	11

Authorized Positions	MANAGING DIRECTOR	PLANNING & DEVELOPMENT	CITIZEN SERVICES	FINANCE	LEGAL	PERSONNEL	CENTRAL OPERATIONS	ENGINEERING	TRAFFIC SAFETY	HIGHWAY MAINTENANCE	TOTAL
Electrical Services Coordinator									1		1
Engineering Aide								4			4
Engineering Inspector II								21	6		27
Engineering Inspector III								2	2		4
Engineering Technician II								11	11	1	23
Engineering Technician III								2			2
Environmental Concerns Coordinator		1									1
Environmentalist II		1									1
Equipment Instructor										1	1
Fleet Manager							1				1
Foreman									3	18	21
Information Systems Services Supervisor		1									1
Instrument Operator								4			4
Inventory Control Chief							1				1
Maintenance Analyst										1	1
Maintenance Operations Engineer										1	1
Managing Director	1										1
Office Assistant					1		1	4			6

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Authorized Positions	MANAGING DIRECTOR	PLANNING & DEVELOPMENT	CITIZEN SERVICES	FINANCE	LEGAL	PERSONNEL	CENTRAL OPERATIONS	ENGINEERING	TRAFFIC SAFETY	HIGHWAY MAINTENANCE	TOTAL
Office Clerk	1						1	1	1	1	5
Office Manager	1								1		2
Payroll Accountant				1							1
Permits Engineer									1		1
Personnel Specialist						3					3
Planner II		2									2
Planner III		1									1
Plat Analyst								1			1
Programming Supervisor								1			1
Purchasing Agent							2				2
Purchasing Division Supervisor							1				1
Radio Communicator							1				1
ROW Agent								2			2
ROW & Contracts Engineer								1			1
Risk & Insurance Analyst					1						1
Risk Management Program Coordinator					1						1
Safety Supervisor					1						1
Secretary		1		1	1	1	1	1	1	1	8

Authorized Positions	MANAGING DIRECTOR	PLANNING & DEVELOPMENT	CITIZEN SERVICES	FINANCE	LEGAL	PERSONNEL	CENTRAL OPERATIONS	ENGINEERING	TRAFFIC SAFETY	HIGHWAY MAINTENANCE	TOTAL
Senior Personnel Specialist						1					1
Skilled Foreman							4		3		7
Subdivision Improvement Supervisor								1			1
Special Assessment Analyst								1			1
Survey Assistant								4			4
Survey Crew Chief								4			4
Systems Analyst									1		1
Traffic Engineer									1		1
Trainer									1		1
Transportation Planning Coordinator		1									1
Utilities Coordinator								1			1
Weighmaster									1		1
<b>Total Salaried Positions</b>	<b>9</b>	<b>13</b>	<b>6</b>	<b>16</b>	<b>10</b>	<b>6</b>	<b>18</b>	<b>84</b>	<b>49</b>	<b>39</b>	<b>250</b>

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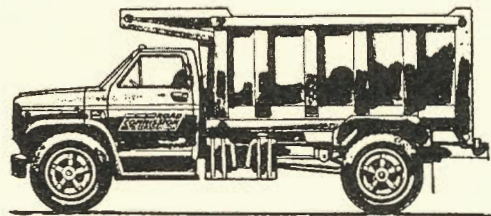
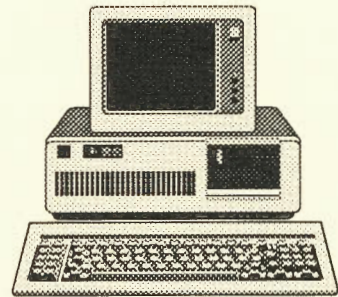
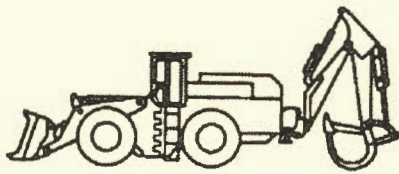
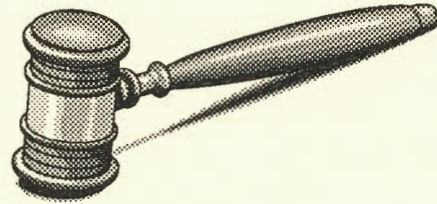
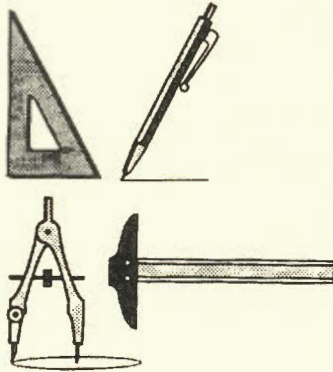
Authorized Positions	MANAGING DIRECTOR	PLANNING & DEVELOPMENT	CITIZEN SERVICES	FINANCE	LEGAL	PERSONNEL	CENTRAL OPERATIONS	ENGINEERING	TRAFFIC SAFETY	HIGHWAY MAINTENANCE	TOTAL
Assistant Sign Fabricator									1		1
Auger Operator									3		3
Bridge Crew Chief										1	1
Bridge Crew Member										4	4
Carpenter							1				1
Crew Leader							1			11	12
Electrician									20		20
Equipment Painter							1				1
Float Operator										42	42
Front End Broom Operator										1	1
Grade Person										5	5
Grader Operator										19	19
Janitor							4				4
Laborer II							2		14	12	28
Loader Operator										6	6
Mechanic							32				32
Radio Repairman									1		1
Shoulder Maintainer										6	6

Authorized Positions	MANAGING DIRECTOR	PLANNING & DEVELOPMENT	CITIZEN SERVICES	FINANCE	LEGAL	PERSONNEL	CENTRAL OPERATIONS	ENGINEERING	TRAFFIC SAFETY	HIGHWAY MAINTENANCE	TOTAL
Shovel Operator										6	6
Sign Fabricator									1		1
Sign Truck Driver									8		8
Skilled Laborer I							3		11	6	20
Small Tool Engine Repair Mechanic							1				1
Small Tool Repairman/Janitor										1	1
Solid State Electrician									1		1
Stock Clerk							4				4
Storekeeper							2				2
Street Sign Blade Installer									1		1
Tandem Float Driver										35	35
Tire Repair							1			5	6
Tractor Semi Driver										7	7
Tree Trimmer										4	4
Vactor Operator										3	3
Watchman							3				3
<b>Total Hourly Positions</b>							<b>55</b>		<b>61</b>	<b>174</b>	<b>290</b>
<b>TOTAL ALL POSITIONS</b>	<b>9</b>	<b>13</b>	<b>6</b>	<b>16</b>	<b>10</b>	<b>6</b>	<b>73</b>	<b>84</b>	<b>110</b>	<b>213</b>	<b>540</b>

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Authorized Positions Budget Exhibit A-7

# Departments



# Departments

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## Object Detail

Department: Board of Road Commissioners

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$ 31,000
Contracted Services		
Audit	\$ 54,600	
Membership Fees & Dues	<u>400</u>	
		55,000
Materials, Supplies & Parts		
Stationery & Office Supplies		400
Other Expenses		
Awards -- Employees & Retirees	9,300	
Books, Subscriptions & Publications	400	
Travel	<u>15,000</u>	
		24,700
<b>TOTAL</b>		<u><b>\$111,100</b></u>

# Departments

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## Position - Salary Detail

Department: Board of Road Commissioners

	<u>Salary</u>		<u>Appropriation</u>
	<u>Minimum</u>	<u>Maximum</u>	
Road Commissioners	\$10,000	\$11,000	\$ 31,000
<b>TOTAL SALARIES</b>			<b>\$31,000</b>

# Departments

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## MANAGING DIRECTOR DEPARTMENT

The Clerk of the Board is the "Official Keeper of Records" charged with the responsibility of providing and maintaining all official Road Commission records, and making available to all departments an accurate and up-to-date filing system of these records.

The Clerk's Office also receipts, balances, and prepares deposits for all incoming Road Commission monies; places and handles billings of advertising for projects and materials; tabulates all equipment and material bids; processes all incoming and outgoing mail; mails all press releases; processes all incoming materials for the weekly Board meeting; and prepares the agenda and minutes for the weekly Board meeting.



# Departments

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## Object Detail

Department: Managing Director

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$430,230
Contracted Services		
Membership Fees & Dues	900	
Professional Services	<u>102,500</u>	103,400
Materials, Supplies & Parts		
Photography Expense	1,750	
Stationery & Office Supplies	<u>7,300</u>	9,050
Other Expenses		
Advertising	38,325	
Books, Subscriptions & Publications	4,000	
Postage	36,500	
Training	500	
Travel	<u>14,400</u>	93,725
<b>TOTAL</b>		<u><b>\$636,405</b></u>

# Departments

## Position - Salary Detail

Department: Managing Director

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Managing Director*	\$64,100	\$89,600	\$ 89,600
1	Deputy Managing Director	57,700	75,800	75,800
1	Assistant Managing Director**	55,100	72,500	72,500
1	Assistant to the Managing Director for Public Information	41,418	46,968	46,968
1	Deputy Secretary/Clerk	31,992	36,217	34,700
1	Office Manager to Mgng. Dir.	28,676	32,386	30,877
1	Office Clerk	24,895	26,349	24,895
1	Clerk Typist	22,759	24,067	24,067
1	Commission Receptionist	21,094	22,292	21,897
9	<b>TOTAL</b>			<b>\$421,304</b>
		Overtime		300
		Seasonal		7,800
		Longevity		826
		<b>TOTAL SALARIES</b>		<b>\$430,230</b>

\* The Managing Director is designated the statutory Secretary/Clerk of the Board.

\*\* The Assistant Managing Director serves as the County Highway Engineer.

# Departments

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## **PLANNING AND DEVELOPMENT**

The following provides a summary of the activities conducted by Planning And Development.

### **Systems Planning**

Systems Planning provides technical and administrative assistance to the Road Commission in the areas of research, evaluation, and planning.

Key functions include:

- Analyzing accident data for the development of the Road Improvement Program
- Evaluating the accident impacts of specific improvements, policies, and procedures
- Developing procedures for evaluating the benefits of road projects
- Developing programs and procedures to assist RCOC operations (IVHS, accident location identification and correction, etc.)
- Evaluating transportation issues for their impact on RCOC
- Providing staff liaison to various state, regional and local transportation agencies and committees
- Monitoring county-wide development and evaluating the impact of that development on the transportation system
- Determining future transportation needs
- Evaluating requests for road certification or abandonment
- Developing and updating road functional classifications
- Evaluating road network decisions for planning purposes
- Providing staff support for Federal funding activities
- Developing a long-range transportation plan
- Troubleshooting and providing assistance on personal computer problems
- Assessing technology for RCOC applications

### **Environmental Concerns**

The Environmental Concerns staff reviews special assessment and proposed construction projects for any potential social, economic or environmental conflict; prepares environmental studies in compliance with the National Environmental Policy Act in order to become eligible for federal funding; and assists other departments in complying with rules for storage/disposal of hazardous wastes.

# Departments

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The staff also processes Natural Beauty Road petitions, attends public meetings, examines environmental complaints or concerns that the public or local officials have about RCOC practices or proposed projects, and conducts or oversees air, noise and water quality studies.

Environmental Concerns also prepares assessments and attends informational meetings; reviews the Road Improvement Program to determine the need for public involvement; monitors construction projects that have environmental issues to ensure compliance with state/local rules and regulations; and reviews site and bikeway plans and environmental reports prepared by other agencies.

## **Information Systems Services**

Information Systems Services provides agency-wide computer support by writing and maintaining computer programs; entering and editing data into computer files; and assisting computer users in identifying and specifying new data needs and in modifying existing needs.

Information Systems Services also identifies, designs, and specifies computer system improvements to maintain and improve the level of computer service to the agency. Staff programmers and analysts serve as technical advisors to various committees and task groups dealing with the agency needs.

Other tasks include assisting in training personnel in computer usage, evaluating the applicability of commercially-available computer programs to RCOC's needs, and developing new methods for analyzing RCOC data.

# Departments

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## Object Detail

Department: Planning & Development

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$534,829
Contracted Services		
EDP Services	\$71,000	
Membership Fees & Dues	400	
Professional Services	<u>66,000</u>	137,400
Materials, Supplies & Parts		
Data Processing Supplies	15,000	
Photography Expense	1,500	
Stationery & Office Supplies	<u>5,500</u>	22,000
Other Expenses		
Books, Subscriptions & Publications	400	
Training	1,800	
Travel	<u>6,500</u>	8,700
Capital Outlay		
Office Equipment		2,000
<b>TOTAL</b>		<u>\$704,929</u>

# Departments

## Position - Salary Detail

Department: Planning & Development

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Planning and Development	\$48,800	\$64,600	\$ 64,600
1	Transportation Planning Coordinator	46,764	53,074	51,812
1	Environmental Concerns Coordinator	41,418	46,968	46,968
1	Planner III	38,629	43,910	43,910
1	Information Systems Services Supervisor	38,629	43,910	43,910
2	Planner II	34,565	39,073	73,638
1	Computer Programmer	34,565	39,073	39,073
1	Environmentalist II	34,565	39,073	36,370
1	Computer Technician		34,979	34,979
1	Secretary		32,386	32,386
2	Data Entry Operator	22,759	24,067	48,134
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13	TOTAL			\$515,780
			Overtime	6,000
			Longevity	13,049
				<hr/>
			<b>TOTAL SALARIES</b>	<b>\$534,829</b>

# Departments

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## CITIZEN SERVICES

The Department of Citizen Services originated in 1973. Its responsibility is to assist the citizens of Oakland County with service and information requests. Citizen Services receives 15,000 to 20,000 calls and letters annually on its 2,400 miles of county roads as well as 300 miles of state trunklines within Oakland County. Some examples of these calls include winter maintenance, pot holes, drainage, traffic signs and signals, pavement markings, and construction projects.

This Department also administers the Road Commission's summer dust control program for residents residing on gravel roads. In 1992, the program encompassed 280 miles of gravel roads, more than one third of the total gravel road mileage in the county.

# Departments

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## Object Detail

Department: Citizen Services

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$196,593
Materials, Supplies & Parts		
Photography Expense	\$ 240	
Stationery & Office Supplies	<u>3,240</u>	3,480
Other Expenses		
Books, Subscriptions & Publications		40
<b>TOTAL</b>		<u><b>\$200,113</b></u>



# Departments

## Position - Salary Detail

Department: Citizen Services

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Citizen Services	\$43,000	\$54,300	\$ 54,300
1	Citizen Services Coordinator	31,456	35,521	35,521
4	Citizen Services Clerk	24,895	26,349	102,488
6	<b>TOTAL</b>			<b>\$192,309</b>
	Overtime			500
	Seasonal			-0-
	Longevity			3,784
	<b>TOTAL SALARIES</b>			<b>\$196,593</b>

# Departments

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## **FINANCE**

The function of the Finance Department is to plan, coordinate, and administer all of the accounting, financial, and budgetary functions of the Road Commission, including preparation of financial statements. The Finance Department is responsible for the administration of the Road Commission's Three-Year Financial Plan, in which all operating department directors participate. It is also charged with the administration of the Road Commission for Oakland County Retirement System and Section 457 Deferred Compensation Plan.

Other key functions include cash management, investment of idle funds, handling the issuance of notes and bonds, and financial analysis of special projects to assist the Managing Director in decision making.

## **Accounting**

The Accounting section maintains the general ledger and administers the related functions, including payroll, accounts payable, accounts receivable, and inventory control. Other functions of the Accounting section include preparation of the Annual Report required by Act 51, which governs the operation of the Road Commission, preparing billings and accounting for the State Trunk Line Maintenance Contract, and working with both independent public accountants and state auditors.

## **Budget**

The Budget section prepares and administers the Road Commission's fiscal budget, including preparation of the budget document and the administration of appropriation transfers authorizing revisions to the budget. It also analyzes and distributes the monthly Budget vs. Actual reports and assists the operating departments in identifying and resolving variances. The Budget section also does the accounting for the Road Improvement Program, including billing local units of government for their agreed participation in road projects.

# Departments

## Object Detail

Department: Finance

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$573,512
Contracted Services		
EDP Services	\$ 1,285	
Membership Fees & Dues	480	
Professional Services	<u>9,000</u>	10,765
Materials, Supplies & Parts		
Stationery & Office Supplies		8,000
Other Expenses		
Books, Subscriptions & Publications	680	
Travel	<u>775</u>	1,455
Capital Outlay		
Office Equipment		3,600
Fixed Charges		
Retirement Administrative Expense		18,800
<b>TOTAL</b>		<u><b>\$616,132</b></u>

# Departments

## Position - Salary Detail

Department: Finance

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Finance	\$52,500	\$69,500	\$ 63,200
1	Accounting Supervisor	41,418	46,968	46,968
1	Budget Supervisor	35,451	40,857	40,857
1	Assistant Accounting Supervisor	35,451	40,857	39,935
1	Payroll Accountant	31,456	35,521	35,521
1	Construction Accountant	28,711	32,386	32,386
9	Account Clerk	26,780	28,325	256,634
1	Secretary	26,780	28,325	28,325
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16	<b>TOTAL</b>			<b>\$543,826</b>
		Overtime		13,400
		Seasonal		5,000
		Longevity		11,286
				<hr/>
		<b>TOTAL SALARIES</b>		<b>\$573,512</b>

# Departments

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## LEGAL

The responsibility of the Legal Department is to manage the legal affairs of the Road Commission and to advise and assist all agency personnel to ensure that all actions taken are consistent with relevant laws and are in accordance with the Board's enacted policies, the directives of the Office of the Managing Director, and the vision and mission of the Road Commission.

Additionally, the Legal Department is responsible for the Risk Management function of the Road Commission, principally involving accident analysis and dissemination of information to agency personnel directed toward risk identification and reduction.

Attainment of these objectives is accomplished primarily through the Legal Department's involvement in a variety of issues and activities which are managed by the department within the general framework of the functional categories set forth below:

- Litigation and loss management, which includes the management of all claims and litigation involving the Board, its officials and employees
- Statutorily-mandated duties including:
  - Abandonment petitions
  - Highway jurisdiction transfers
  - Freedom of Information Act compliance
- Legal opinions and research, which include the drafting of legal opinions at the request of the Board, the Managing Director and other departments
- Contract drafting/review, including the preparation and/or review of agreements between the Board and other governmental agencies and/or the private sector
- Agency operations, which include formal and informal opinions regarding the operational procedures of other Road Commission departments and representation of the agency in administrative proceedings
- Special projects as directed by the Office of the Managing Director, which may include the drafting of proposed legislation
- Risk Management function, including the following: responsibility for management and coordination of the Road Commission's insurance and self-insurance programs for liability, property and workers' compensation

# Departments

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## Object Detail

Department: Legal

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$414,657
Contracted Services		
Professional Services		12,000
Materials, Supplies & Parts		
Stationery & Office Supplies		5,000
Other Expenses		
Awards -- Employees & Retirees	2,500	
Books, Subscriptions & Publications	11,000	
Training	1,000	
Safety Control Expense	8,000	
Travel	<u>1,600</u>	
		24,100
<b>TOTAL</b>		<b>\$455,757</b>

# Departments

## Position - Salary Detail

Department: Legal

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Legal	\$48,800	\$64,600	\$ 64,600
1	Chief Attorney of Litigation & Loss Management	44,092	50,016	50,016
1	Risk Management Program Coordinator	41,418	46,968	46,968
2	Attorney II	38,008	43,051	86,102
1	Safety Supervisor	34,527	39,072	39,072
1	Secretary -- Legal	25,930	29,060	29,060
1	Risk & Insurance Analyst	31,456	35,521	35,521
1	Claims Clerk -- Risk	26,780	28,325	27,111
1	Office Assistant -- Risk	24,895	26,349	26,349
10	TOTAL			<u>\$404,799</u>
		Overtime		2,500
		Seasonal		2,500
		Longevity		4,858
		<b>TOTAL SALARIES</b>		<u><b>\$414,657</b></u>

# Departments

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## PERSONNEL

The Personnel Department provides a complete range of employee and human resource services utilizing staff specialists in employee benefits, classification and compensation, training, and employee relations. Labor relations with four bargaining units are the primary responsibility of the department director.

Subtitled with the broad spectrum of these general topics are benefit information systems, United Way and U.S. Savings Bond campaigns, classification audits, job descriptions, wage surveys, employee recruiting, interview participation, applicant tracking, transfers, promotions, employee recognition and employee discipline.

Other concerns include the administration of the tuition reimbursement program, long-range training plans, employee orientation, the investigation of employee complaints, assistance with equal employment opportunity issues and maintenance of the Affirmative Action Plan.



# Departments

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## Object Detail

Department: Personnel

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$239,167
Contracted Services		
Labor Relations	\$ 37,000	
Membership Fees & Dues	100	
Professional Services	<u>20,000</u>	57,100
Materials, Supplies & Parts		
Stationery & Office Supplies		4,000
Other Expenses		
Advertising	1,000	
Books, Subscriptions & Publications	1,400	
Medical Exams	9,000	
Training	3,000	
Travel	<u>1,000</u>	15,400
<b>TOTAL</b>		<u><b>\$315,667</b></u>

# Departments

## Position - Salary Detail

Department: Personnel

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Personnel	\$43,000	\$54,300	\$ 47,800
1	Senior Personnel Specialist	38,629	43,910	38,629
3	Personnel Specialist	34,527	39,072	112,671
1	Secretary -- Personnel	25,930	29,060	29,060
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6	<b>TOTAL</b>			<b>\$228,160</b>
		Overtime		500
		Seasonal		6,000
		Longevity		4,507
				<hr/>
		<b>TOTAL SALARIES</b>		<b>\$239,167</b>

# Departments

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## **CENTRAL OPERATIONS**

The Central Operations Department includes the Purchasing Division, Fleet Maintenance (District #6), and Buildings and Grounds (District #9).

### **Purchasing**

The Purchasing division is responsible for expenditures of approximately \$10 million annually which include but are not limited to:

- Concrete sawing, tree trimming, refuse disposal, roadside spraying, cars, trucks, vans, front end loaders, graders, rollers, excavators, compactors, concrete saws, mowers, snow plows, fuel dispensing pumps, etc.
- Bulk items: salt, tires, gravel, gasoline, motor oil, diesel fuel, grader blades, liquid calcium chloride, cold patch, and hot patch
- Garage supplies and tools: tire changers, grinders, battery chargers, hydraulic jacks, air hammers, impact wrenches, mechanics' hand tools, electric drills and various other hand tools
- Engineering laboratory equipment and supplies: chemicals, metal locators, measuring wheels, survey equipment, drafting equipment, and supplies
- Traffic equipment and supplies: post drivers, truck-mounted augers, illuminated arrows, two-way radios, signs, sign posts, sign blanks, and decals
- Other items such as corrugated metal culvert pipe, cement pipe, sod, grass seed, office furniture and equipment, stationery, printing and office supplies, and automotive replacement and repair parts

Purchasing is also responsible for inventory control, which includes the warehousing of approximately \$2-million in inventory. Other duties include making travel and hotel arrangements, and responsibility for the telephone system.

### **Fleet Maintenance**

Fleet Maintenance is responsible for the repair and maintenance of equipment, e.g., trucks, pickups, sedans, graders, plows, trailers, excavators, spreaders, mowers, saws, aerial equipment, traffic counters, and radios.

### **Buildings and Grounds**

Buildings and Grounds is responsible for the maintenance and repair of all buildings and grounds, heating and air conditioning, security service, office machine repairs, utilities and storage facilities for salt, brine, gasoline, diesel fuel, etc.

# Departments

## Object Detail

Department: Central Operations

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$2,727,936
Contracted Services		
Maintenance Contracts	\$ 23,000	
Membership Fees & Dues	200	
Security Services	18,000	
Fire Extinguisher Service	1,500	
Car Washing	4,000	
Building & Equipment Leases	80,600	
Disposal of Hazardous Waste Materials	<u>9,000</u>	
		136,300
Materials, Supplies & Parts		
Brine Well Expense	10,700	
Buildings & Grounds Maintenance	143,900	
Small Tools	4,425	
Repair to Fuel Equipment	10,000	
Laundry Expense	44,000	
Garage Expense	60,000	
Garage Equipment Repair	38,000	
Gas, Oil & Diesel Fuel	495,000	
Road & General Equipment Repair	1,250,000	
Vehicle Safety Improvement	10,000	
Janitor & Restroom Supplies	38,000	
Stationery & Office Supplies	16,500	
Garage Small Tools	32,500	
Parts, Supplies and Freight	<u>500</u>	
		2,153,525
Other Expenses		
Books, Subscriptions & Publications	200	
Maintenance Contracts -- Office Equipment	21,000	
Training	3,100	
Safety Control Expense	6,500	
Travel	<u>700</u>	
		31,500

# Departments

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## Object Detail

Department: Central Operations (Continued)

<u>Object</u>		<u>Appropriation</u>
Fixed Charges		
Electrical	\$220,000	
Heat	207,000	
Telephone	155,000	
Water	7,000	
Workers' Compensation -- Self-Insured Expense	<u>55,000</u>	
		\$ 644,000
Capital Outlay		
Buildings	211,725	
Road Equipment	344,000	
Shop Equipment	4,000	
Office Equipment	7,400	
Storage Facilities	<u>143,000</u>	
		<u>710,125</u>
<b>TOTAL</b>		<b>\$6,403,386</b>

# Departments

## Position - Salary Detail

Department: Central Operations

Office of Director

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Central Operations	\$48,800	\$64,600	\$ 64,600
1	Fleet Manager	38,629	43,910	43,910
1	Secretary	26,780	28,325	28,325
3	TOTAL			<u>\$136,835</u>
	Overtime			1,000
	Seasonal			3,000
	Longevity			4,584
	TOTAL SALARIES			<u>\$145,419</u>

# Departments

## Position - Salary Detail

Department: Central Operations

Division: Purchasing

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Purchasing Division Supervisor	\$38,629	\$43,910	\$ 42,740
1	Inventory Control Chief	31,992	36,217	36,217
2	Purchasing Agent	31,456	35,521	71,042
1	Office Clerk	24,895	26,349	26,349
1	Office Assistant	24,895	26,349	26,349
1	Clerk Typist	22,759	24,067	23,472
2	Storekeeper		31,111	62,222
4	Stock Clerk		29,775	119,100
13	<b>TOTAL</b>			<b>\$407,491</b>
		Overtime		7,000
		Longevity		10,661
		<b>TOTAL SALARIES AND WAGES</b>		<b>\$425,152</b>

# Departments

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## Position - Salary Detail

Department: Central Operations

District #6: Fleet Maintenance

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	District Clerk	22,759	24,067	24,067
3	Skilled Foreman	33,936	35,912	107,736
32	Mechanic		34,076	1,090,432
1	Small Tool Engine Repair Mechanic		31,633	31,633
1	Equipment Painter		31,111	31,111
1	Tire Repair		30,610	30,610
2	Laborer II		28,961	57,922
42	<b>TOTAL</b>			<b>\$1,414,149</b>
			Overtime	165,600
			Longevity	32,030
			<b>TOTAL SALARIES &amp; WAGES</b>	<b>\$1,611,779</b>



# Departments

## Position - Salary Detail

Department: Central Operations

District #9: Buildings and Grounds

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	Radio Communicator	27,896	30,034	30,034
1	Skilled Foreman	33,936	35,912	35,912
1	Carpenter		34,076	34,076
1	Crew Leader		32,886	32,886
3	Skilled Laborer I		30,610	91,830
3	Watchman		29,775	89,325
4	Janitor		25,390	*104,484
15	<b>TOTAL</b>			<b>\$459,185</b>
		Overtime		65,600
		Longevity		20,801
		<b>TOTAL SALARIES &amp; WAGES</b>		<b>\$545,586</b>

\*Includes night shift premium

# Departments

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## ENGINEERING

The Engineering Department has five divisions. The following provides a summary of the activities conducted by each division.

### Right-of-Way

The Right-of-Way Division performs right-of-way engineering; that is, determines adjacent property needed for road improvement plans. It also provides all legal work necessary for road improvement projects of various types. The Division negotiates for and acquires properties needed, if not already owned, by the public. The Division does all administrative work associated with right of way, including determining property ownership, appraisals, and necessary documentation. In addition to serving department project needs, the Division assists local units of government, utility companies, and citizens with road right-of-way questions.

### Subdivision Improvement and Development

SID has three major areas of responsibility for public subdivision streets in non-incorporated areas of the County: administration of acceptance of new streets created by developers; improvement of existing streets by special assessment procedures; and administration of conversions of private streets to public status when the necessary procedures are initiated by townships.

### Design

The Design Division is responsible for the design of all county road improvement projects other than subdivision street improvements (although, at times, it assists with these). Most projects are designed in-house by staff. Other responsibilities include advertising for and qualifying private contractors to construct the projects. The Design Division also conducts public informational meetings and assists in plat review and other functions.

### Construction

The Construction Division, including testing activities, is responsible for the administration of all construction contracts. The Division is responsible for quality assurance on all road improvement projects, including assuring that the contractor complies with designs and construction specifications. The Division evaluates soils and other factors of a project area prior to design. Testing construction materials at the point of manufacture and on-site both during and after construction is another important responsibility.

On-site inspection of contractors' work is performed throughout a project. Documentation of work accomplished and materials used is conducted for both Road Commission use and for verification to funding agencies such as the Federal Highway Administration and the state.

# Departments

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## Programming

The Programming Division is responsible for selecting and scheduling road improvement projects suggested by various sources both inside and outside the organization, identifying and procuring funding for scheduled projects included in the RCOC budget, and monitoring the progress of projects through final accounting. The Division prepares programming forms for Federal aid and furnishes documents necessary to certify road mileage and conditions as required to qualify for state-collected vehicle fuel and licensing tax funding.

# Departments

## Object Detail

Department: Engineering

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$3,432,246
Contracted Services		
Copying Equipment	\$ 17,000	
S.A.D. Projects Administration	40,000	
EDP Services	3,000	
Membership Fees & Dues	255	
Professional Services	717,195	
Equipment Leases	<u>11,000</u>	
		788,450
Materials, Supplies & Parts		
Photography Expenses	1,350	
Stationery & Office Supplies	32,800	
Parts & Supplies	<u>26,000</u>	
		60,150
Other Expenses		
Books, Subscriptions & Publications	1,000	
Training	11,000	
Safety Control Expense	2,500	
Travel	3,740	
Right-of-Way Program (Non-Project)	<u>3,000</u>	
		21,240
Fixed Charges		
Workers' Compensation -- Self-Insured Expense		2,500
Capital Outlay		
Road Equipment	80,500	
Office Equipment	8,700	
Engineering Equipment	<u>1,300</u>	
		90,500
<b>TOTAL</b>		<u><b>\$4,395,086</b></u>

# Departments

## Position - Salary Detail

Department: Engineering

Office of Director

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Engineering	\$48,800	\$64,600	\$64,600
1	Secretary	26,780	28,325	28,325
2	<b>TOTAL</b>			<b>\$ 92,925</b>
			Overtime	5,000
			Seasonal	24,480
			Longevity	189
	<b>TOTAL SALARIES</b>			<b>\$122,594</b>

# Departments

## Position - Salary Detail

Department: Engineering

Division: Right of Way

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	R.O.W. & Contracts Engineer	\$44,092	\$50,016	\$ 50,016
1	Attorney II	38,008	43,051	43,051
1	Engineering Technician III	31,992	36,217	36,217
2	Right-of-Way Agent	31,456	35,521	69,783
1	Engineering Technician II	28,711	32,386	32,386
1	Engineering Aide	27,896	30,034	30,034
1	Office Assistant	24,895	26,349	26,349
8	TOTAL			<u>\$287,836</u>
		Overtime		5,000
		Longevity		17,808
		TOTAL SALARIES		<u>\$310,644</u>

# Departments

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## Position - Salary Detail

Department: Engineering

Division: Subdivision Improvement & Development

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	S.I.D. Supervisor	\$46,764	\$53,074	\$ 53,074
1	Assistant S.I.D. Supervisor	41,418	46,968	42,330
1	Civil Engineer III	38,629	43,910	43,910
1	Engineering Technician III	31,992	36,217	34,703
1	Plat Analyst	31,456	35,521	31,456
1	Special Assessment Analyst	31,456	35,521	34,043
3	Engineering Technician II	28,711	32,386	89,808
2	Engineering Inspector II	28,711	32,386	64,772
1	Engineering Aide		30,914	30,914
1	Office Assistant	24,895	26,349	26,349
<b>13</b>	<b>TOTAL</b>			<b>\$451,359</b>
			Overtime	30,000
			Longevity	26,168
			<b>TOTAL SALARIES</b>	<b>\$507,527</b>

# Departments

## Position - Salary Detail

Department: Engineering

Division: Design

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Design Engineer	\$46,764	\$53,074	\$ 50,456
3	Civil Engineer III	38,629	43,910	126,449
3	Civil Engineer II	34,565	39,073	112,711
1	Survey Crew Chief	31,992	36,217	36,217
6	Engineering Technician II	28,711	32,386	194,316
1	Instrument Operator	27,896	30,034	30,034
1	Survey Assistant	22,759	24,067	24,067
—				—————
16	TOTAL			<b>\$574,250</b>
			Overtime	35,000
			Longevity	8,464
				—————
			<b>TOTAL SALARIES</b>	<b>\$617,714</b>



# Departments

## Position - Salary Detail

Department: Engineering

Division: Construction & Testing

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Construction Engineer	\$46,764	\$53,074	\$ 53,074
3	Civil Engineer III	38,629	43,910	132,730
2	Engineering Inspector III	31,992	36,217	70,508
3	Survey Crew Chief	31,992	36,217	108,651
1	Civil Engineer II	34,565	39,073	39,073
1	Utilities Coordinator	31,456	35,521	35,521
19	Engineering Inspector II	28,711	32,386	609,745
1	Engineering Aide	27,896	30,034	27,896
3	Instrument Operator	27,896	30,034	85,195
1	Office Clerk	24,895	26,349	26,349
1	Office Assistant	24,895	26,349	26,349
3	Survey Assistant	22,759	24,067	69,224
<hr/>				
39	TOTAL			<hr/> <b>\$1,284,315</b>
		Overtime		265,000
		Longevity		87,691
				<hr/>
		<b>TOTAL SALARIES</b>		<b>\$1,637,006</b>

# Departments

## Position - Salary Detail

Department: Engineering

Division: Programming

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Programming Supervisor	\$44,092	\$50,016	\$ 50,016
1	Civil Engineer III	38,629	43,910	42,218
1	Civil Engineer II	34,565	39,073	39,073
1	Engineering Technician II	28,711	32,386	32,386
1	Engineering Aide	27,896	30,034	30,034
1	Office Assistant	24,895	26,349	26,349
<hr/>				<hr/>
6	TOTAL			<b>\$220,076</b>
		Overtime		5,000
		Longevity		11,685
				<hr/>
		TOTAL SALARIES		<b>\$236,761</b>

# Departments

## TRAFFIC SAFETY

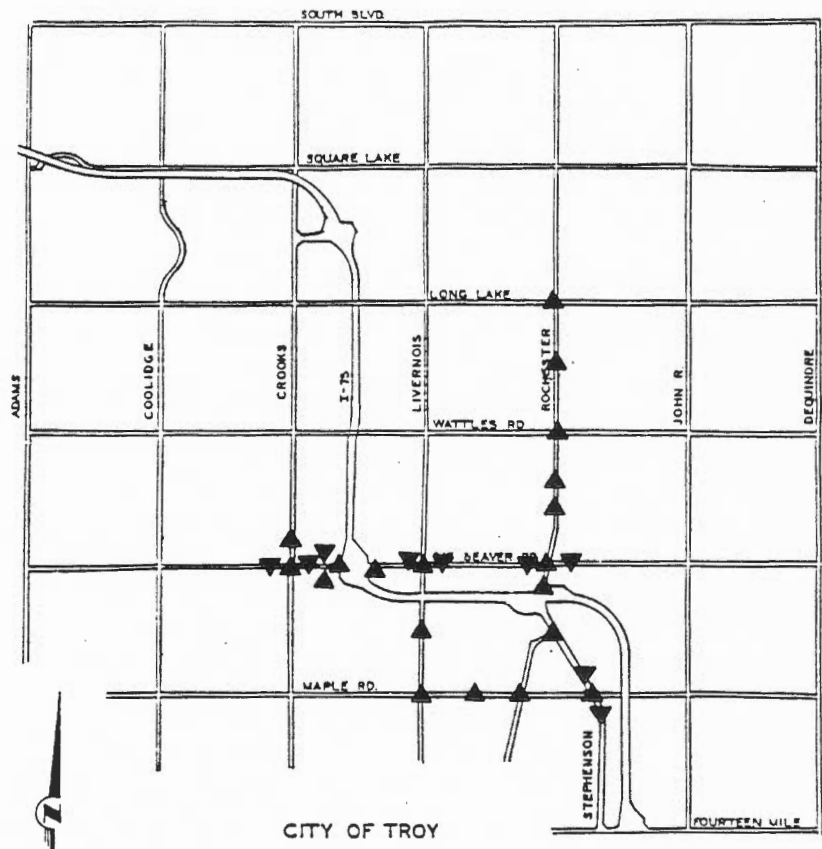
Traffic Safety consists of the Traffic Engineering Division, Permits Division, District #7 (traffic signs and guardrail), and District #8 (traffic signals and other electrical devices).

## Engineering

The Traffic Engineering Division's activities include the study, planning and design for the safe and efficient movement of traffic on roads in Oakland County. This includes collecting and analyzing traffic data, analyzing traffic accident information, and reviewing the geometrics on construction plans. In addition, the Traffic Engineering Division provides engineering services to the operating districts which are responsible for installing and maintaining the traffic signs, traffic signals, and guardrails on the road system.

Another responsibility of Traffic Engineering is the pilot Intelligent Vehicle Highway System project, consisting of the Sydney Coordinated Adaptive Traffic System (SCATS), using autoscope video imaging for detection, and the Ali-Scout driver information system.

## SCATS Deployment Sites



# Departments

Applications planned for Fiscal Year 1993 include:

- Development of pedestrian detection using autoscope
- Testing and evaluation of new detection techniques
- Construction of a traffic operations center
- Integration of the SCATS and Ali-Scout systems
- Initial work on integrating the IVHS efforts with the Michigan Department of Transportation Freeway Operations system

## Permits

The Permit Division handles the issuance of permits to perform work on Road Commission rights of way. Permits are issued for commercial and private driveways, private roads, public utilities, overweight and oversized vehicles, dust control applications and various other work activities performed by contractors, citizens, and others in the right of way. After issuance of the permit, the Permit Division is also responsible for the inspection of the work by the permit licensee to ensure the work is done in accordance with Road Commission for Oakland County standards.

## Sign Shop

Fabrication, installation and maintenance of traffic signs and guardrail are the responsibility of the Sign Shop (District 7).

## Electrical Services

District 8, Electrical Services, is charged with the responsibility of maintaining over 1,200 traffic signals in Oakland County. District 8 also installs new traffic signals and school flashers as needed, replaces obsolete equipment and assists in the deployment of the Intelligent Vehicle Highway System.

	<u>FY91 Budget</u>	<u>FY92 Budget</u>	<u>FY93 Budget</u>
SCATS	N/A	90	210
Autoscopes	N/A	23	93
Ali-Scout Beacon System			
(locations)	N/A	30	100
(vehicles)	N/A	78	1,078
Traffic Signal Installations*	17	19	11
Traffic Signal Modernizations	71	76	26
Traffic Signal Maintenance**			
(number of signals maintained)	1,136	1,185	1,200
Traffic Sign Maintenance			
(number of signs maintained)	25,100	26,000	25,500
Guardrails (number of feet			
of material to be used)	21,305	14,475	14,475
Permit Fees	\$200,000	\$250,000	\$250,000
Inspection Charges	\$250,000	\$235,000	\$250,000

\* Installed by RCOC

\*\* Includes installations by other agencies 85

# Departments

## Object Detail

Department: Traffic Safety

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$4,006,618
Contracted Services		
EDP Services	\$ 4,500	
Maintenance Contracts	891,000	
Map and Brochure Printing	8,000	
Membership Fees & Dues	700	
Street Lighting Utilities	19,200	
Traffic Signal Utilities	810,000	
Disposal of Hazardous Waste Materials	<u>1,000</u>	
		1,734,400
Materials, Supplies & Parts		
Small Tools	26,000	
Photography Expense	9,000	
Materials -- Electrical, Installation & Modernization	290,285	
Uniform Expense	100	
Materials -- Electrical, Maintenance	165,000	
Road & General Equipment Repair	15,000	
Stationery & Office Supplies	23,000	
Signs & Materials	407,100	
Guardrail & Miscellaneous	206,400	
Radio Communication & Repair	<u>20,000</u>	
		1,161,885
Other Expenses		
Books, Subscriptions & Publications	600	
Training	3,250	
Safety Control Expense	13,500	
Travel	3,500	
Special Training -- District #8	<u>8,000</u>	
		28,850
Fixed Charges		
Workers' Compensation -- Self Insured Expense		88,000
Capital Outlay		
Road Equipment	758,000	
Office Equipment	<u>10,800</u>	
		768,800
<b>TOTAL</b>		<b><u>\$7,788,553</u></b>

# Departments

## Position - Salary Detail

Department: Traffic Safety

Office of Director

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Traffic Safety	\$48,800	\$64,600	\$ 64,600
1	Secretary	26,780	28,325	28,325
<hr/>				
2	<b>TOTAL</b>			<b>\$ 92,925</b>
		Overtime		250
		Seasonal		3,800
		Longevity		380
		<hr/>		
		<b>TOTAL SALARIES</b>		<b>\$97,355</b>

# Departments

## Position - Salary Detail

Department: Traffic Safety

Division: Traffic Engineering

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Traffic Engineer	\$44,092	\$50,016	\$ 50,016
4	Civil Engineer III	38,629	43,910	170,972
1	Systems Analyst	35,451	40,857	35,451
2	Civil Engineer II	34,565	39,073	73,638
1	Trainer	31,992	36,217	31,992
1	Electrical Services Coordinator	31,456	35,521	35,521
11	Engineering Technician II	28,711	32,386	345,221
1	Clerk Typist	22,759	24,067	22,759
—				—
22	<b>TOTAL</b>			<b>\$765,570</b>
		Overtime		47,500
		Longevity		35,602
				—
		<b>TOTAL SALARIES</b>		<b>\$848,672</b>

# Departments

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## Position - Salary Detail

Department: Traffic Safety

District #7: Sign Shop

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,088
1	District Clerk I	22,759	24,067	24,067
3	Foreman	32,553	34,039	102,117
3	Auger Operator		32,886	98,658
8	Sign Truck Driver		31,111	248,888
1	Street Sign Blade Installer		31,111	31,111
1	Sign Fabricator		31,111	31,111
1	Asst. Sign Fabricator		30,610	30,610
6	Skilled Laborer I		30,610	183,660
14	Laborer II		28,961	407,206
<b>39</b>	<b>TOTAL</b>			<b>\$1,197,516</b>
			Overtime	65,000
			Longevity	74,224
			Winter Maintenance Transfer	(59,808)
			<b>TOTAL SALARIES &amp; WAGES</b>	<b>\$1,276,932</b>



# Departments

## Position - Salary Detail

Department: Traffic Safety

District #8: Electrical Services

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	Office Clerk	24,895	26,349	26,349
3	Skilled Foreman	33,936	35,912	107,736
1	Solid State Electrician		34,076	34,076
20	Electrician		34,076	654,920
1	Radio Repairman		31,633	31,633
5	Skilled Laborer I		30,610	153,050
32	<b>TOTAL</b>			<b>\$1,048,402</b>
			Overtime	152,000
			Longevity	54,121
			<b>TOTAL SALARIES &amp; WAGES</b>	<b>\$1,254,523</b>

# Departments

## Position - Salary Detail

Department: Traffic Safety

Division: Permits

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Permits Engineer	\$44,092	\$50,016	\$ 44,092
2	Engineering Inspector III	31,992	36,217	72,434
1	Chief Weighmaster	29,769	33,645	33,645
1	Civil Engineer II	34,565	39,073	39,073
6	Engineering Inspector II	28,711	32,386	191,053
1	Office Manager	28,711	32,386	32,386
1	Weighmaster	28,711	32,386	32,386
2	Clerk Typist	22,759	24,067	48,134
<hr/>				<hr/>
15	<b>TOTAL</b>			<b>\$493,203</b>
		Overtime		10,800
		Longevity		<u>25,133</u>
		<b>TOTAL SALARIES</b>		<b>\$529,136</b>

# Departments

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## HIGHWAY MAINTENANCE

The Highway Maintenance department is comprised of seven districts located throughout Oakland County. This proximity to job sites enables the department to minimize response time, such as in snow storms and road emergencies. Salt domes are also located throughout the county, further streamlining operations and minimizing shipping and travel expenditures.

The Maintenance Department operates under a Maintenance Management Performance System. This system is divided into four categories.

1. Workload Planning
2. Resource Management
3. Control
4. Analysis

This system involves two types of standards in the development of the work program.

1. Quantity Standards or the annual quantity of work related to our inventory measure unit.
2. Performance Standard - the optimum standard method (crew size, equipment, material and procedures) for carrying out the activities of expected daily production.

The following are some of the activities performed by the Highway Maintenance Department:

### Activities

- Pot Hole Patching
- Spreading of Gravel & Slag
- Bridge Painting
- Snow & Ice Control
- Chloride Program
- Herbicides

### Maintenance Contracts

Contracted services include:

- Curb Sweeping
- Joint & Crack Sealing
- Maintenance Contracts with Cities and Townships
- Concrete Replacement
- Concrete Pavement Sawing
- Tree Removal
- Asphalt Paving

# Departments

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## Materials

The following are some of the major materials used in Highway Maintenance operations:

	<u>'92 Actual Cost Per Unit</u>	<u>'92 Estimated Cost</u>	<u>'93 Est. Cost Per Unit</u>	<u>'93 Estimated Cost</u>
Gravel - delivered	\$ 4.39	\$ 182,216	\$ 4.75	\$ 197,125
Gravel at pit	3.10	118,684	3.25	125,752
Sylvax	58.06	34,836	61.00	145,302
Hot Mix	22.71	217,153	25.00	239,050
Salt	23.22	1,532,520	24.50	1,617,000
Sand	13.20	190,080	13.90	200,160
Slag	6.24	129,542	6.30	101,285
Culvert	5.00	32,500	4.50	42,750

# Departments

## Object Detail

Department: Highway Maintenance

<u>Object</u>		<u>Appropriation</u>
Salaries (See Position-Salary Detail)		\$7,911,057
Contracted Services		
Maintenance Contracts	\$1,823,000	
Membership Fees & Dues	300	
Weather Forecast Service	3,150	
Outside Equipment Rental	24,000	
Local Maintenance Contracts	579,400	
Building and Equipment Leases	46,660	
Disposal of Hazardous Waste Materials	<u>5,000</u>	
		2,481,510
Materials, Supplies & Parts		
Small Tools -- Road	45,000	
Barricades	27,000	
Photography Expense	2,000	
Stationery & Office Supplies	24,000	
Signs & Materials	10,000	
Salt, Sand & Chloride	1,817,000	
Patching Material	437,600	
Gravel & Slag	471,200	
Liquid Chloride	219,600	
Other Road Materials	<u>240,900</u>	
		3,294,300
Other Expenses		
Books, Subscriptions & Publications	315	
Training	3,600	
Safety Control Expense	23,000	
Travel	<u>7,600</u>	
		34,515
Fixed Charges		
Workers' Compensation -- Self Insured Expense		160,000
Capital Outlay		
Road Equipment	1,505,500	
Shop Equipment	30,300	
Office Equipment	8,000	
Brine Well	<u>250,000</u>	
		1,793,800
<b>TOTAL</b>		<b>\$15,675,182</b>

# Departments

## Position - Salary Detail

Department: Highway Maintenance

Office of Director

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	Director of Highway Maintenance	\$48,800	\$64,600	\$ 64,600
1	Maint. Operations Engineer	44,092	50,016	50,016
1	Civil Engineer III	38,629	43,910	42,674
1	Equipment Instructor	31,456	35,521	35,521
1	Maintenance Analyst	31,456	35,521	35,521
1	Engineering Technician II	28,711	32,386	32,386
1	Secretary	26,780	28,325	28,325
1	Office Clerk	24,895	26,349	26,349
1	Foreman	32,553	34,039	34,039
9	TOTAL			<u>\$349,431</u>
			Overtime	20,000
			Seasonal	4,000
			Longevity	20,406
			<b>TOTAL SALARIES</b>	<u><b>\$393,837</b></u>

# Departments

## Position - Salary Detail

Department: Highway Maintenance

District #1: Milford

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	District Clerk	22,759	24,067	24,067
2	Foreman	32,553	34,039	68,078
2	Crew Leader		32,886	65,772
5	Grader Operator		31,111	155,555
1	Shovel Operator		31,111	31,111
8	Float Operator		30,610	244,880
7	Tandem Float Driver		30,610	214,270
1	Tire Repair		30,610	30,610
1	Shoulder Maintainer		30,610	30,610
1	Loader Operator		30,610	30,610
2	Tractor Semi-Driver		30,610	61,220
1	Grade Person		29,775	29,775
1	Laborer II		28,961	28,961
<b>34</b>	<b>TOTAL</b>			<b>\$1,056,157</b>
			Overtime	140,128
			Longevity	54,306
			Winter Maintenance Transfer	(19,936)
			<b>TOTAL SALARIES &amp; WAGES</b>	<b>\$1,230,655</b>

# Departments

## Position - Salary Detail

Department: Highway Maintenance

District #2: Davisburg

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	District Clerk	22,759	24,067	24,067
2	Foreman	32,553	34,039	68,078
2	Crew Leader		32,886	65,772
7	Grader Operator		31,111	217,777
1	Shovel Operator		31,111	31,111
9	Float Operator		30,610	275,490
4	Tandem Float Driver		30,610	122,440
1	Tire Repair		30,610	30,610
2	Tractor Semi Driver		30,610	61,220
1	Loader Operator		30,610	30,610
1	Vactor Operator		30,610	30,610
1	Shoulder Maintainer		30,610	30,610
1	Grade Person		29,775	29,775
1	Laborer II		28,961	28,961
35	<b>TOTAL</b>			<b>\$1,087,769</b>
			Overtime	117,457
			Longevity	82,521
			Winter Maintenance Transfer	<u>(39,872)</u>
			<b>TOTAL SALARIES &amp; WAGES</b>	<b>\$1,247,875</b>



# Departments

## Position - Salary Detail

Department: Highway Maintenance

District #3: Lake Orion

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	District Clerk	22,759	24,067	24,067
2	Foreman	32,553	34,039	68,078
1	Crew Leader		32,886	32,886
5	Grader Operator		31,111	155,555
1	Shovel Operator		31,111	31,111
6	Float Operator		30,610	183,660
1	Shoulder Maintainer		30,610	30,610
6	Tandem Float Driver		30,610	183,660
1	Loader Operator		30,610	30,610
1	Tire Repair		30,610	30,610
2	Tractor Semi-Driver		30,610	61,220
1	Grade Person		29,775	29,775
2	Laborer II		28,961	57,922
<b>31</b>	<b>TOTAL</b>			<b>\$960,402</b>
			Overtime	129,975
			Longevity	70,585
			Winter Maintenance Transfer	9,968
			<b>TOTAL SALARIES &amp; WAGES</b>	<b>\$1,170,930</b>

# Departments

## Position - Salary Detail

Department: Highway Maintenance

District #4: Pontiac

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	District Clerk	22,759	24,067	24,067
6	Foreman	32,553	34,039	204,234
1	Crew Leader		32,886	32,886
2	Grader Operator		31,111	62,222
2	Shovel Operator		31,111	62,222
10	Float Operator		30,610	306,100
1	Loader Operator		30,610	30,610
2	Skilled Laborer I		30,610	61,220
2	Shoulder Maintainer		30,610	61,220
8	Tandem Float Driver		30,610	244,880
1	Vactor Operator		30,610	30,610
1	Front End Broom Operator		30,610	30,610
1	Tractor Semi-Driver		30,610	30,610
2	Grade Person		29,775	59,550
1	Small Tool Repairman/Janitor		29,775	29,775
6	Laborer II		28,961	173,766
<hr/> 48	<b>TOTAL</b>			<hr/> <b>\$1,485,220</b>
			Overtime	155,380
			Longevity	46,012
			Alternate Shift Premium	<hr/> 1,880
			<b>TOTAL SALARIES &amp; WAGES</b>	<hr/> <b>\$1,688,492</b>

# Departments

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## Position - Salary Detail

Department: Highway Maintenance

District #4S: Southfield

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	District Clerk	22,759	24,067	24,067
2	Foreman	32,553	34,039	68,078
1	Crew Leader		32,886	32,886
1	Shovel Operator		31,111	31,111
4	Float Operator		30,610	122,440
1	Skilled Laborer I		30,610	30,610
1	Shoulder Maintainer		30,610	30,610
1	Loader Operator		30,610	30,610
6	Tandem Float Driver		30,610	183,660
1	Tire Repair		30,610	30,610
1	Laborer II		28,961	28,961
<hr/>				<hr/>
21	<b>TOTAL</b>			<b>\$654,281</b>
				Overtime 115,623
				Longevity 24,711
				Winter Maintenance Transfer and Alternate Shift Premium 160,794
				<hr/>
				<b>TOTAL SALARIES &amp; WAGES \$955,409</b>

# Departments

## Position - Salary Detail

Department: Highway Maintenance

District #4T: Troy

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
1	District Clerk	22,759	24,067	24,067
1	Foreman	32,553	34,039	34,039
1	Crew Leader		32,886	32,886
5	Float Operator		30,610	153,050
1	Skilled Laborer I		30,610	30,610
4	Tandem Float Driver		30,610	122,440
1	Loader Operator		30,610	30,610
1	Tire Repair		30,610	30,610
1	Vactor Operator		30,610	30,610
1	Laborer II		28,961	28,961
18	<b>TOTAL</b>			<b>\$558,521</b>
				Overtime 79,046
				Longevity 34,425
				Winter Maintenance Transfer and Alternate Shift Premium 50,493
				<b>TOTAL SALARIES &amp; WAGES \$722,485</b>

# Departments

## Position - Salary Detail

Department: Highway Maintenance

District #5: Special Services

<u>Authorized Positions</u>	<u>Classification</u>	<u>Salary</u>		<u>Appropriation</u>
		<u>Minimum</u>	<u>Maximum</u>	
1	District Superintendent	\$38,682	\$40,638	\$ 40,638
2	Foreman	32,553	34,039	68,078
1	Bridge Crew Chief		32,886	32,886
3	Crew Leader		32,886	98,658
4	Bridge Crew Member		31,633	126,532
4	Tree Trimmer		31,111	124,444
2	Skilled Laborer I		30,610	61,220
—				
17	TOTAL			\$552,456
	Overtime			24,720
	Longevity			23,878
	Winter Maintenance Transfer			(99,680)
	<b>TOTAL SALARIES &amp; WAGES</b>			<b>\$501,374</b>

# Non-Departmental

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## NON-DEPARTMENTAL

### Materials, Supplies and Parts

First Aid Supplies Includes oxygen units, first aid kits, and supplies.

### Other Expenses

#### Building & Contents Insurance

Provides coverage for physical damage to RCOC buildings and contents, mobile (contractor) equipment, licensed vehicles, boiler and machinery, and computer equipment.

#### Fleet Liability Insurance

Liability insurance for RCOC's car and truck fleet.

#### Public Officials Errors and Omissions

Provides coverage for public officials and employees for errors and omissions.

#### Fiduciary and Performance Bond

Provides coverage for the pension and deferred compensation fiduciary responsibility and the employee faithful performance blanket bond.

#### General Liability Insurance

Provides coverage for general liability exposures above a specific retention amount.

#### General Liability Self-Insured Expense

Provides for the funding of claims and suits resolved within the RCOC retention limit.

#### Services Fees

Provides funds to pay third party administrators to adjust claims in general liability and workers' compensation exposures.

#### Auto Physical Damage

Provides funds for repairing physical damage to RCOC vehicles.

#### Special Risk Liability Self-Insured Expense

The Road Commission is self-insured in special risk exposures. This includes, but is not limited to, pollution liability and crime exposures.

### Employee Benefits

The employee benefits are as follows: dental, hospitalization, life insurance (including accidental death and dismemberment), vision care, major medical insurance and prescription drugs, retirement, social security, unemployment insurance, workers' compensation, sick leave, and longevity.

### Membership Fees and Dues

Expenditures that relate to memberships of the Road Commission as a whole, and not individual membership fees and dues.

### Debt Service

Expenditures for interest and repayment of principal on bonds and notes.

# Non-Departmental

Department: Non-Departmental

<u>Object</u>		<u>Appropriation</u>
<b><u>Risk Management</u></b>		
Materials, Supplies & Parts		
First Aid Supplies	\$	2,500
Other Expenses		
Buildings & Contents Insurance	\$	38,000
General Liability Insurance		501,500
Fiduciary & Performance Bond		13,250
Public Officials -- Errors and Omissions		27,300
Special Risk Liability -- Self-Insured Expense		75,000
General Liability -- Self-Insured Expense	2,200,000	
Service Fees (General Liability)		18,000
Auto Physical Damage -- Self-Insured Expense		30,000
Fleet Liability Insurance	<u>310,900</u>	
		\$3,213,950
<b>Risk Management Total</b>		<b>\$3,216,450</b>
 <b><u>Employee Benefits</u></b>		
Fixed Charges		
Dental Insurance -- Self-Insured Expense		285,000
Hospitalization -- Self-Insured Expense		2,175,000
Life Insurance		105,400
Vision Care -- Self-Insured Exp.		35,500
Major Medical -- Self-Insured Expense		138,000
Retirement -- Employer Contrib.	3,300,000	
Social Security	1,550,000	
Unemployment Insurance		10,000
Workers' Compensation		93,000
Sick Leave Redemption		100,000
Workers' Compensation -- Self-Insured Expense		207,000
Service Fees (Workers' Compensation)		25,000
Prescription Drugs -- Self-Insured Expense		455,000
Annual Physical Program	<u>10,000</u>	
<b>Employee Benefits Total</b>		<b>8,488,900</b>

# Non-Departmental

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Department: Non-Departmental (Continued)

<u>Object</u>		<u>Appropriation</u>
<u>Other</u>		
Contracted Services		
Membership Fees & Dues	\$ 42,000	
Materials, Supplies and Parts		
Inventory Adjustment	125,000	
Fixed Charges		
Debt Service	\$2,422,520	
Bond Payment Fees & Issue Cost	<u>7,500</u>	
	2,430,020	
<b>Other Total</b>		<b>2,597,020</b>
Road Commission Contingency		492,201
Personnel Turnover -- Attrition		(300,000)
		<hr/>
<b>NON-DEPARTMENTAL TOTAL</b>		<b>\$14,494,571</b>



SPECIAL ASSESSMENT FUND

Estimated Budget of Revenue, Expenditures  
and Change in Fund Balance

Fiscal Year Ending September 30, 1993

**Revenue**

Revenue From Assessment Rolls	\$3,000,000
Road Fund Contribution Net Underassessment	25,000
Interest On Assessment Rolls	625,000
Interest on Investments	95,000
	<hr/>
<b>Total Revenue</b>	<b>\$3,745,000</b>

**Expenditures**

Construction:	
Contractor Payments	\$2,000,000
Engineering and Administration	325,000
Interest on Debt	290,500
Principal Payment on Debt	1,200,000
Refunds of Overassessments to Participants -- Net	50,000
Note Payment Fees & Issue Costs	5,000
	<hr/>
<b>Total Expenditures</b>	<b>\$3,870,500</b>

<b>Excess of Revenue over Expenditures</b>	<b>\$ (125,500)</b>
Fund Balance -- September 30, 1992	1,672,302
	<hr/>
Fund Balance -- September 30, 1993	<b>\$1,546,802</b>

I.V.H.S. PROGRAM FUND

Estimated Revenue, Expenditures  
and Change in Fund Balance

Fiscal Year Ending September 30, 1993

Revenue

Federal Revenue -- I.V.H.S. \$8,900,000

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Total Revenue \$8,900,000

Expenditures

I.V.H.S. Project Expenses \$8,375,000

I.V.H.S. Projects -- RCOC Labor Costs 525,000

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Total Expenditures \$8,900,000

Excess of Revenue over Expenditures \$ 0

Fund Balance -- September 30, 1992 0

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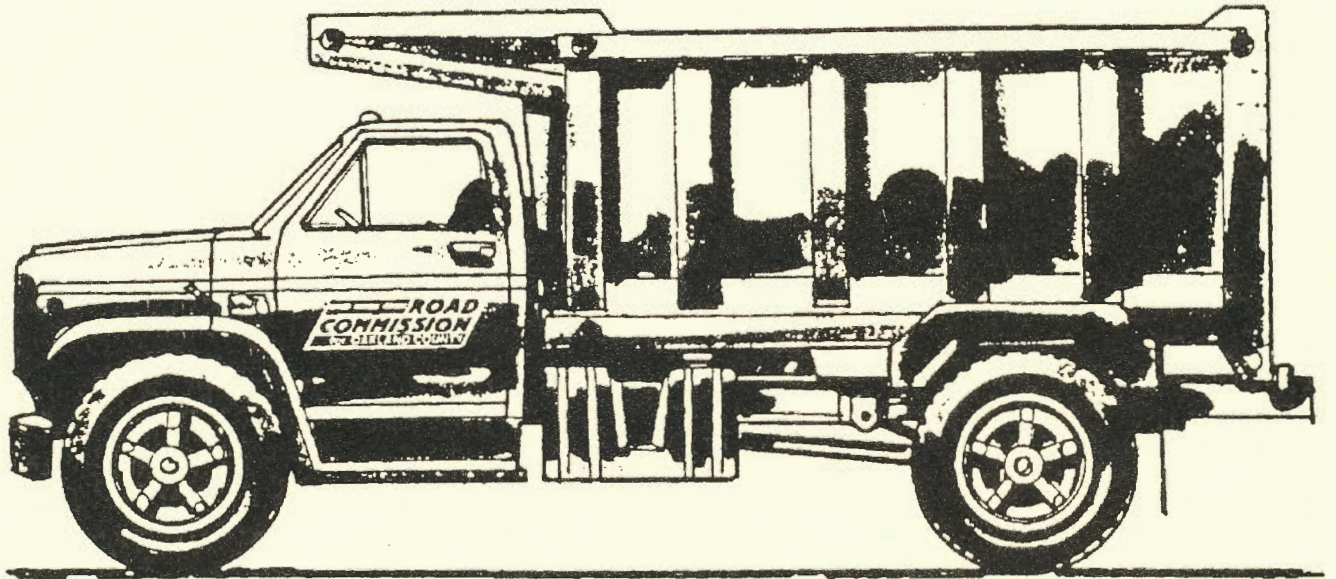
Fund Balance -- September 30, 1993 \$ 0

MAINTENANCE EXPENDITURES

For Compliance With Section 12 (16) of Act 51

1.	Total Michigan Transportation Fund Revenue	\$35,800,000
	<b>Less:</b>	
2.	Administrative Expenses	\$(4,122,257)
3.	Capital Outlay	\$(3,368,825)
4.	Debt Service	\$(2,422,520)
5.	<b>Total (Line 1 less Lines 2 thru 4)</b>	<b>\$25,886,398</b>
6.	Routine Maintenance	\$26,212,695
7.	Heavy Maintenance (Projects)	\$23,241,369
8.	Less Federal Aid -- Heavy Maintenance	\$(10,055,250)
9.	<b>Total Maintenance</b>	<b>\$39,398,814</b>
10.	90% of Line 5	\$23,297,758

# Capital Budgeting



# Capital Budgeting

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The Road Commission for Oakland County capital budget consists of two major categories.

## **CAPITAL OUTLAY**

The Capital Outlay category consists of Land and Improvements, Buildings, Road Equipment, Shop Equipment, Office Equipment, Engineering Equipment, Storage Facilities and Brine Well. Most of the funding for these expenditures comes from state-collected motor fuel and vehicle taxes.

## **Criteria**

The Road Commission's criteria for replacement of its equipment and buildings are 1) obsolescence, 2) no longer functional, or 3) fully depreciated.

The decision for replacement of RCOC's road equipment, which represents the major share of capital expenditures, is based on the fleet manager's recommendations evaluated against the total capital outlay request, history of repair costs, and net book value. The Road Commission does not have a policy of automatically trading in equipment at a certain age or usage. When the equipment will no longer do the job and major expenditures are required to keep it functioning, it is then replaced.

In the last few years, funding restraints have prevented RCOC from maintaining the fleet at the desired level of overall replacement compared to total fixed assets.

## **Cost/Benefit Analysis**

All capital expenditures exceeding \$10,000 require a cost/benefit study before presentation to the Board of Road Commissioners for its approval. See "Vehicle Fleet Status" (page 113) for an explanation of Cost/Benefit Analysis.

## **ROAD IMPROVEMENT PROGRAM**

The Road Improvement Program includes all the construction projects on primary and local roads. These roads are part of the infrastructure and, therefore, are not capitalized as part of the fixed asset account group.

The major sources of revenue for these projects are Federal and state aid and contributions from local units of government. For example, the Road Commission has a matching Tri-Party Program of one-third local, one-third Oakland County and one-third Road Commission funding.

# Capital Budgeting

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The Road Commission's share of the Road Improvement Program comes from state-collected fuel and vehicle taxes, which are returned to the Road Commission under the provisions of Act 51. State funding is from the Transportation Economic Development Fund categories "A" (economic development projects) and "C" (urban congestion reduction). Federal aid comes from the Critical Bridge Fund, Surface Transportation Program (STP), Hazard Elimination/Safety Fund (HES) and Congressional Demonstration Grants.

## Act 51

Act 51 of the Public Acts of 1951, as amended, requires that money distributed from the Michigan Transportation Fund may be expended for construction purposes on county local roads only to the extent that it is matched by money from local sources. However, Michigan Transportation Fund dollars may be expended for the construction of bridges on the county local roads in an amount not to exceed 75% of the cost of the construction of local road bridges.

## Project Programming and Budgeting

For each road project there is an estimate of the amount of staff time and funding required for the following phases:

- Preparation of plans and specifications
- Land and right of way acquisition
- Agreements (other government units and consultants)
- Construction and materials inspection

In addition, the start-up and completion dates to the nearest month or year are estimated. When contracting with the local units, the project manager prepares an exhibit of financial participation by other units of government and agencies involved in undertaking the project. At this point, a project number is assigned to each job and the agreements with both the state and local units are executed.

Once the budget, which includes the Road Improvement Program, has been adopted, the Engineering Department assigns a project manager to each of the projects for coordinating all activities involved in their implementation. The project manager establishes the project schedule and its related deadlines and makes every effort to anticipate possible breakdowns and delays. In addition, the project manager keeps a file on all contract agreements and other correspondence surrounding the project, and is a general source of information should questions arise.

# Capital Budgeting

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## **Project Progress and Review**

Once all property owners have been contacted and land acquired, the design plan is put out for bid to construction contractors. Upon acceptance of the low bid and award of the contract, the projects are turned over to the Construction Division for implementation.

Monthly reports are prepared on the progress of each project's activity and summarized on a quarterly basis. This review may point out problems with funding and any delays in design, right of way, or construction. It is designed to aid management in identifying and dealing with delays before they become serious.

The review process involves the Engineering Department reporting on project activity to the Managing Director's Office. Special reports are also made for each significant start or stop of work, and for changes in the project scope, work items, or cost overruns which require approval or budget transfers.

# Capital Budgeting

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## VEHICLE FLEET STATUS

Due to financial limitations in recent years, the Road Commission for Oakland County has reduced replacement of aging and obsolete equipment. This coupled with vigorous maintenance practices were the major elements of its cost-containment strategy.

During this past fiscal year, it has become increasingly clear that this strategy, while containing costs, has resulted in a progressively obsolete fleet incapable of delivering the required and expected range and level of services.

It is apparent that many of the agency's vehicles have reached or exceeded their reasonable life expectancy in terms of age or miles driven. Further, maintenance expenditures on many vehicles far exceed their present worth or the cost to replace them.

### The Road Commission Passenger Car Fleet

The average Road Commission passenger car is 6.5 years old and two thirds of the fleet is between 4 and 9 years old. The typical RCOC car has been driven over 85,000 miles, but about one third of the fleet has been driven over 100,000 miles. Repair costs to date on a typical vehicle total about one half of the original purchase price. Repair costs on one tenth of the fleet now exceed the purchase price of the vehicle. It has cost about 6.5 cents per mile to maintain this average vehicle over its lifetime.

### The Road Commission Pick-up and Van Fleet

One hundred of the oldest RCOC pick-ups and vans were inventoried. This sample represents about two thirds of the total pick-up and van fleet. The average RCOC vehicle in this inventory is over 7 years old, and has been driven approximately 88,000 miles. Thirty-five percent of these pick-ups have been driven 100,000 miles or more. Forty-eight percent have cumulative maintenance costs in excess of the original purchase price. The average pick-up and/or van cost just under 10 cents per mile to maintain, and 10 percent of those surveyed cost 15 or more cents per mile to maintain.

### The Road Commission Heavy Equipment Fleet

Road Commission Category "A" vehicles are not a homogeneous group, including such vehicle types as boom trucks, dump trucks, wreckers and utility trucks. As a result, the usage patterns of these vehicles are more difficult to summarize. For example, many are driven to locations where they remain stationary during long periods in which the vehicle is primarily being used to power auxiliary equipment transported by the vehicle. Thus, mileage on these vehicles is only one criterion of usage. Engine hours may, in many instances, be an equally if not more important criterion.



# Capital Budgeting

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Similarly, many of these vehicles are engaged in activities which are particularly detrimental to longevity. Most notably, trucks used as snow plows and salt spreaders are subject to extremely corrosive conditions that deteriorate truck frames and bodies.

Finally, many of these vehicles are specialized and very expensive to acquire. Specialized usage does not necessarily equate to longer lifespans, but in many cases, does result in the vehicle escaping the deterioration associated with daily or frequent usage. As a result, age alone is not as valid a criterion for identifying replacement candidates as with other vehicles.

A review of the 7 cyd and 12 cyd trucks, both of which figure prominently in snow and ice control during winter maintenance operations, is revealing in terms of age, miles and maintenance history.

One hundred twenty-nine vehicles in the heavy equipment category are 7 cyd or 12 cyd trucks. Of these, twenty three are over 10 years old. Thirty three have been driven 100,000 miles or more. Sixty eight have maintenance costs that exceed their purchase price.

## Costs/Benefits of

### Repairing vs. Replacing

Analysis of costs and benefits requires clearly defined and quantifiable choices or alternatives. These choices may include doing nothing as well as distinct courses of action. Specifically, the objective of these analyses is to achieve comparable benefit-to-cost ratios.

Two types of cost/benefit analyses have been established:

- Comparison of a continuing repair to a replacement alternative to improve fleet readiness
- Comparison of a continuing repair to a replacement alternative of a specific vehicle

## Resource Allocation Decision to Repair/ Replace Equipment

There are three principal factors which contribute significantly to fleet readiness and hence to the decision to continue repairing an aging vehicle or to replace it:

# Capital Budgeting

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1. Probability of future equipment downtime, especially during critical operations such as snow removal
2. Impact of possible equipment failure on fleet backup margins, especially during critical operations
3. Physical deterioration, such as corrosion of frame and body parts, which destroys the structural integrity of the vehicle

Downtime is of importance to fleet readiness, especially during critical operations such as winter maintenance, because of service delivery delays or postponements.

However, calculation of the impact of downtime is not a simple matter. Preventive maintenance results in equipment downtime, but is judged beneficial since this investment in short downtime is to eliminate or significantly reduce more costly downtime for corrective maintenance.

Further, downtime takes on different values depending upon when the equipment failure occurs. Thus, a high cost is placed on downtime of snow removal equipment during a major snow storm, but a much lower cost is placed on the downtime of a mowing machine during the same period.

Finally, for the private concern, the cost of downtime can usually be calculated, or at least estimated, by the revenues or profits lost when the vehicle is not operative. This direct equation of downtime to costs is not as easily derived for a public, non-profit agency.

Aggressive preventive maintenance in recent years has contributed materially to reducing equipment downtime, especially during critical operations, as well as in prolonging the service life of the aging fleet. Corrective maintenance associated with repair and/or replacement of damaged parts also contributes by returning equipment to a ready status. For example, equipment down for corrective maintenance was estimated to be about 5% during the major storm of the 1991-92 winter season. This was a reduction from about 15% from the storms on the 1990-91 season and from a high of about 30% during earlier years.

# Capital Budgeting

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However, aggressive maintenance programs cannot prolong vehicle service life indefinitely. The time will come when maintenance costs can no longer be justified given the anticipated performance of the vehicle. Increased age and miles of travel or engine hours will increase the probability of equipment failure even on aggressively-maintained vehicles. Operation of vehicles for spreading salt and other corrosive materials will ensure that frames and bodies will deteriorate at an accelerated rate, regardless of maintenance practices. Grading and snow plowing place stresses on equipment that are not experienced by similar over-the-road or even construction equipment. Many RCOC passenger cars and pick-ups are driven extensively on gravel roads and through construction zones, contributing a dimension to miles driven not present in similar vehicles in the general public fleet.

Nevertheless, the decision to replace aging equipment is not simply a matter of age, miles driven, or of determining when repair costs exceed the residual value of the vehicle. Some vehicles may be of an advanced age, but mechanically and structurally sound. Similarly, high mileage vehicles may also have very modest maintenance costs, and yet be operationally sound.

While often cited as justification for the decision to buy a new vehicle, it is probably fallacious to use past maintenance costs in such a manner. Past repair costs, in the readiness context, represent "sunk costs" which were expended to achieve past fleet readiness benefits. From this readiness perspective, past repair costs do not apply to future benefits or fleet readiness. The repair costs of importance to fleet readiness are those to be incurred in the future compared to the benefits that could be achieved by replacing the vehicle.

## Calculating the Cost/Benefit of Repair vs. Replacement

From the readiness point of view, benefits accrue from decreased vehicle downtime, which in turn can be achieved in three ways:

- Corrective maintenance of damaged or failed equipment
- Preventive maintenance of equipment to minimize corrective maintenance

# Capital Budgeting

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- Acquisition of new replacement equipment when the future costs of preventive and corrective maintenance exceed the acquisition cost

At first impression, this calculation may appear to be in error since it compares a future maintenance history with a present-day acquisition cost without regard to either the age of the vehicle to be maintained or the subsequent maintenance history of the vehicle to be acquired.

Upon reflection, however, it will be realized that these factors, if considered, would result in decisions to either maintain the existing vehicle forever or to acquire a new vehicle solely on the basis of age.

In the readiness context, vehicle age, miles driven or past maintenance history do not enter into the calculations. A vehicle, regardless of age, mileage or past repair history, that can be maintained at a ready state less expensively than acquiring a new vehicle would be retained.

It is necessary, however, to establish an expected minimum time limit that a newly acquired vehicle is expected to last. This is necessary to identify the acceptable level of maintenance. Conceptually, the calculation can be posed as:

1. What are the expected future repair expenditures on the vehicle over the period equivalent to the life expectancy of a new vehicle?
2. Do these expected future repair expenditures exceed the purchase price of the new vehicle?
  - a. If the answer to this question is yes, it is beneficial to acquire the new vehicle.
  - b. If the answer to this question is no, the existing vehicle would be maintained for another year.

The expected future repair expenditures are calculated as follows:

1. The average maintenance costs of the vehicle for the last three years is calculated.

# Capital Budgeting

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2. A weighted average consisting of the lowest repair cost in the three-year period, the highest repair cost in the repair period, and the average is calculated:

$$\frac{\text{Lowest Repair} + (4 \times \text{Average Repair}) + \text{Highest Repair}}{6}$$

Factors to be considered in this method are:

- a. Although the unweighted average is the most likely estimate for future maintenance costs, a high degree of uncertainty exists around the unweighted average value in predicting future costs.
- b. Three years of major repairs may eliminate all major causes of failure on the vehicle and hence result in much lower-than-average maintenance costs in subsequent years.
- c. Increasing age may lead to a major repair cost, much higher than the three-year average, in a subsequent year.
- d. The weighted average shown above is an often-used method of dealing with estimations involving considerable variation and uncertainty, combining a pessimistic (highest cost), an optimistic (lowest cost) and the most likely (average) cost estimate, but giving major weight to the most likely.

**Results of the Calculations** This approach was applied in turn to each passenger car, pick-up, van and heavy truck surveyed. The procedure suggested the new vehicles that should be needed in Fiscal Year 1993.

# Capital Budgeting

## DETAIL OF CAPITAL OUTLAY

### Finance

#### Office Equipment

1	Personal Computer with Expansion Cabinet	3,000	
1	Coordinator Software	<u>600</u>	
			<u>3,600</u>

3,600

### Central Operations

#### Buildings

	Install secondary containment for in-house chemical storage at repair areas (Districts #1, #2, #3, #4, #4S, #4T, #6)	10,500	
	Remove and redirect floor drains from storm sewer to approved system (Districts #1, #2)	30,000	
	Enlarge women's bathroom and shower (District #3)	40,000	
	Construct women's facilities (Districts #4S, #4T)	80,000	
	Install roof exhaust fans (District #6)	19,500	
	Install roof vents, exhaust fans (Cold Storage Building)	13,000	
	Upgrade alarm system (Districts #1, #2, #3, #4T, Beverly Hills)	4,725	
	Upgrade lighting (District #6)	<u>14,000</u>	
			211,725

#### Road Equipment

3	One-ton Pick-up Truck	42,000	
2	Liftgate	3,000	
1	Utility Vehicle	30,000	
1	Hydraulic Wrecker	125,000	
1	Air Compressor for Tire Truck	2,500	
11	Four-door Sedan (used)	115,500	
2	Half-ton Pick-up Truck	<u>26,000</u>	
			344,000

#### Shop Equipment

2	Welder	<u>4,000</u>	
			4,000

#### Office Equipment

2	Terminal	2,000	
1	Personal Computer	3,000	
1	Printer	900	
1	Coordinator Software	600	
1	Word-processing Typewriter	<u>900</u>	
			7,400

# Capital Budgeting

## Central Operations (continued)

### Storage Facilities

Remove existing chloride storage tanks and piping (#3)	5,000
Refurbish chloride storage tanks and piping (#4)	5,000
Repair exterior of salt dome, seal cracks, remove loose material, recoat (#4, #4S, #4T)	77,000
Remove, rebuild salt dome entry walls (#4S)	6,000
Monitoring equipment (does not include contaminated soil removal cost) (#4, #4S, #4T)	<u>50,000</u>

143,000

710,125

## Engineering

### Road Equipment

2 Four-door Sedan (used)	21,000
2 Half-ton Pick-up	26,000
1 One-ton Pick-up	15,500
1 Van	<u>18,000</u>

80,500

### Office Equipment

9 CAD System Software Updates (Construction, Design, ROW)	<u>8,700</u>
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8,700

### Engineering Equipment

1 Roll-o-meter	600
1 Pressure Meter	<u>700</u>

1,300

90,500

## Planning and Development

### Office Equipment

1 Replacement Personal Computer	<u>2,000</u>
---------------------------------	--------------

2,000

2,000

# Capital Budgeting

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## Traffic Safety

### Road Equipment

3	Four-door Sedan (used)	31,500	
4	Half-ton Pick-up	52,000	
4	One-ton Pick-up	56,000	
1	One-ton Van	18,000	
2	Sign Truck with Boom, Air Compressor, Post Puller	160,000	
1	Signal Truck with Boom	90,000	
1	Guardrail Post Pounder Truck with Air Compressor, Pounder Rig	110,000	
1	Guardrail Platform Truck with Air Compressor	70,000	
1	Signal Truck (reuse existing boom)	70,000	
1	Flashing Tailgate Barricade	2,500	
8	Dynamote Generator	32,000	
1	Concrete Breaker (Air Hammer)	1,600	
1	Hand-held Concrete Saw	900	
1	Car for IVHS	10,500	
2	One-ton Van	36,000	
1	Mini-van	14,000	
1	Trailer	<u>3,000</u>	
			758,000

### Office Equipment

1	PC Printer	800	
1	Laser Printer	3,500	
1	Impact Printer	2,000	
1	Copy Machine	<u>4,500</u>	
			<u>10,800</u>
			768,800



# Capital Budgeting

## Highway Maintenance

Road Equipment			
4	Four-door Sedan (used)	42,000	
9	One-ton Pick-up	126,000	
3	7 cyd Truck	216,000	
6	12 cyd Truck	504,000	
1	Tractor Chloride Tanker	90,000	
1	Grader	120,000	
1	End Bucket Loader	125,000	
2	Tanker Chloride Trailer	110,000	
3	Trailer Barricade	18,600	
3	Tailgate Barricade	7,500	
4	Underbody Float	20,000	
1	Tractor Mower	30,000	
6	Salt Spreader	14,400	
1	V-Box Insert	30,000	
3	Riding Mower	45,000	
	Weed-Eater, Chain Saw	<u>7,000</u>	
			1,505,500
Shop Equipment			
1	Floor Sweeper (Walk Behind)	9,500	
1	High Pressure Grease Equipment	800	
1	Hot/Cold Power Washer	8,000	
1	Tire Changing Machine	8,000	
1	20-ton Truck Jack	<u>4,000</u>	
			30,300
Office Equipment			
3	Hand-held Portable 2-Way Radios	2,100	
1	Personal Computer	4,500	
1	CAD Software	600	
1	PC Printer	<u>800</u>	
			8,000
Brine Well			
1	Brine Well	<u>250,000</u>	
			<u>250,000</u>
			1,793,800
<b>Total Capital Outlay:</b>			<b>3,368,825</b>

# Capital Budgeting

## CAPITAL OUTLAY HISTORY

<u>Department</u>	<u>1993 Proposed Budget</u>	<u>1992 Amended Budget*</u>	<u>1991 Actual</u>	<u>1990 Actual</u>
Board of Road Commissioners				
Office Equipment	\$ 0	\$ 0	\$ 0	\$ 0
Managing Director				
Office Equipment	0	0	9,033	22,485
Citizen Services				
Road Equipment	0	0	2,811	0
Office Equipment	0	0	0	0
Finance				
Office Equipment	3,600	0	0	7,160
Legal				
Office Equipment	0	1,740	0	1,995
Central Operations				
Land and Improvements	0	0	0	0
Buildings	211,725	90,700	30,179	65,003
Road Equipment	344,000	0	0	0
Shop Equipment	4,000	12,000	61	68,867
Office Equipment	7,400	13,693	10,350	31,867
Storage Facilities	143,000	386,448	98,497	143,187
Personnel				
Office Equipment	0	0	0	2,777
Engineering				
Road Equipment	80,500	1,500	55,161	0
Shop Equipment	0	0	0	0
Office Equipment	8,700	39,670	1,942	4,594
Engineering Equipment	1,300	5,600	15,936	5,465
Planning and Development				
Road Equipment	0	0	0	0
Office Equipment	2,000	399,033	14,440	11,529
Traffic Safety				
Road Equipment	758,000	281,000	175,502	135,557
Shop Equipment		8,198	10,749	7,800
Office Equipment	10,800	1,800	2,265	14,315
Engineering Equipment	0	0	0	2,485
Highway Maintenance				
Road Equipment	1,505,500	1,373,994	595,368	2,201,342
Shop Equipment	30,300	28,700	6,468	19,043
Office Equipment	8,000	6,946	0	6,525
Brine Well Expense	250,000	N/A	N/A	N/A
<b>Totals:</b>	<b>\$3,368,825</b>	<b>\$2,651,022</b>	<b>\$1,028,762</b>	<b>\$2,751,996</b>

\* As of June 30, 1992

# Road Improvement Program



1993 ROAD IMPROVEMENT PROGRAM

STATISTICAL INFORMATION

	1992 Budget		1992 Completion of 1991 Projects in Progress		1993 Budget		1993 Completion of 1992 Projects in Progress	
Safety Road Widening	5.9 mi	\$3,890,000	13.8 mi	\$11,509,000	14 mi	6,082,250	18.4 mi	\$10,100,000
Safety Intersections		30,000			4 Loc.	485,000	1 Loc.	325,000
Bridges	4 Loc.	890,000			2 Loc.	70,000	4 Loc.	1,160,000
Major Resurfacing with Safety (RRR)					4.05 mi	690,000		
123 Contract Maintenance Pavement Management*		80,000						
Pave Gravel	1.5 mi	140,000			4.0 mi	300,000	4 mi	80,000
Contract Maintenance Bridge Management	1 Loc.	184,000				20,000		
Tri-Party		1,500,000		1,001,000		1,500,000		1,500,000
Drainage		50,000				50,000		
Other				1,630,441				798,119
<b>Sub Total</b>		<b>\$ 6,764,000</b>		<b>\$14,140,441</b>		<b>\$ 9,197,250</b>		<b>\$13,963,119</b>
<b>GRAND TOTAL</b>			<b>1992</b>	<b>\$20,904,441</b>			<b>1993</b>	<b>\$23,160,369</b>

\* Transferred to Highway Maintenance budget in 1993.

1993 ROAD IMPROVEMENT PROGRAM

Budget Number	Project Number	Road Class	Name of Road	Length	Termini	Types of Projects and Remarks	Location	Federal Aid, "A" & "C" Funds	Local Gov't Funding	MTF and Other RCOC Funding	Annual Total All Sources	Estimated Total Proj Cost
<u>1993 Safety Widening (4 or More Lanes or Blvd.)</u>												
000-3974-0	39741	P	Dequindre	2.0	14 Mile to 16 Mile	Const ("C")	Troy and Sterling Heights	3,000,000	750,000	250,000	4,000,000	6,540,000
001-4056-0	40561	P	Orchard Lake	0.4	Lone Pine to Pontiac Trail	Const ("C")	W. Bloomfield and Orchard Lake	300,000	50,000	50,000	400,000	560,000
002-4103-0	41031	P	Crooks	1.0	Auburn to Hamlin	ROW ("C")	Rochester Hills	450,000	75,000	75,000	600,000	3,750,000
002-4105-0	41051	P	Maple	1.0	Lahser to Cranbrook	Const (STP)	Bloomfield	400,000	50,000	50,000	500,000	2,500,000
003-4151-0	41511	P	Greenfield	2.0	Eight Mile to Ten Mile	PE (STP)	Southfield and Oak Park	66,000	8,250	8,250	82,500	9,000,000
003-4152-0	41521	P	12 Mile	1.5	Campbell to John R	PE (STP)	Madison Heights and Royal Oak	71,000	8,875	8,875	88,750	3,000,000
003-4153-0	41531	P	Novi Rd.	1.0	Ten Mile to Grand River	PE ("C")	Novi	65,250	10,875	10,875	87,000	4,194,000
003-4154-0	41541	P	12 Mile Rd.	0.5	Inkster to Northwestern	PE ("C")	Southfield	50,000	8,500	8,500	67,000	1,953,000
003-4155-0	41551	P	Adams Rd.	1.0	Avon to Walton	PE ("C")	Rochester Hills	50,000	8,500	8,500	67,000	5,807,000
003-4156-0	41561	P	14 Mile Rd.	1.0	Southfield to Greenfield	PE ("C")	Birmingham and Beverly Hills	50,000	8,500	8,500	67,000	4,108,000
003-4157-0	41571	P	White Lk. Rd.	0.6	Andersonville to RR Tracks	PE ("C")	Independence	42,000	7,000	7,000	56,000	1,015,000
003-4158-0	41581	P	Dequindre	2.0	Big Beaver to Long Lake	PE ("C")	Troy and Sterling Heights	50,000	12,750	4,250	67,000	6,540,000
<b>TOTALS</b>								<b>4,594,250</b>	<b>998,250</b>	<b>489,750</b>	<b>6,082,250</b>	

1993 Safety Intersections

000-4015-0	40151	P	South Blvd.		At Squirrel	Const (HES)	Auburn Hills & Bloomfield Twp.	275,000	37,500	37,500	350,000	400,000
003-4159-0	41591	P	Middlebelt		At 10 Mile	PE	Farmington Hills	-	15,000	15,000	30,000	400,000
003-4167-0	41671	P	Adams		At Auburn	Const	Auburn Hills & Rochester Hills	-	40,000	40,000	80,000	80,000
003-4182-7	41821	P	Farmington		At 8 Mile	Const	Farmington & Wayne County	-	-	25,000	25,000	25,000
<b>TOTALS</b>								<b>275,000</b>	<b>92,500</b>	<b>117,500</b>	<b>485,000</b>	

1993 ROAD IMPROVEMENT PROGRAM

Budget Number	Project Number	Road Class	Name of Road	Length	Termini	Types of Projects and Remarks	Location	Federal Aid, "A" & "C" Funds	Local Gov't Funding	MTF and Other RCOC Funding	Annual Total All Sources	Estimated Total Proj Cost
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1993 Pave Gravel

002-4062-1	40621	P	White Lake	2.0	McKeachie to Teggerdine	ROW (STP)	White Lake Twp.	80,000	-	20,000	100,000	2,155,100
002-4121-1	41211	P	White Lake	2.0	Teggerdine to Andersonville	ROW (Demo)	White Lake Twp.	160,000	-	40,000	200,000	3,125,000
<b>TOTALS</b>								<b>240,000</b>	<b>-</b>	<b>60,000</b>	<b>300,000</b>	

1993 Tri-Party Program

To be Determined								-	1,000,000	500,000	1,500,000	3,000,000
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1993 Major Resurfacing with Safety (Restoration, Resurfacing and Rehabilitation)

003-4160-5	41601	P	Bogie Lake	1.0	Wise to Cooley Lake	Const (STP)	Commerce	144,000	28,000	28,000	200,000	200,000
003-4161-5	41611	P	Kent Lake Rd.	0.2	Grand River to I-96 Ramp	Const (STP)	Lyon	72,000	14,000	14,000	100,000	100,000
003-4162-5	41621	P	Commerce	1.4	Garner to Milford Cty Lmts	Const (STP)	Milford	140,000	22,500	22,500	185,000	185,000
003-4163-5	41631	P.	Grange Hall	.45	N. Holly to Rood	Const (STP)	Holly	44,000	7,500	7,500	59,000	59,000
003-4164-5	41641	P	Willow	1.0	Keith to Lochaven	Const (STP)	W. Bloomfield	100,000	16,000	16,000	132,000	132,000
003-4168-5	41681	P	13 Mile Road		At Lahser	Const	Beverly Hills	-	-	14,000	14,000	14,000
<b>TOTALS</b>								<b>500,000</b>	<b>88,000</b>	<b>102,000</b>	<b>690,000</b>	

1993 Bridges and Bridge Restoration

003-4165-6	41654	L	Kirkway			PE	Bloomfield	-	12,500	12,500	25,000	150,000
003-4166-6	41664	L	Beachland			PE	Waterford	-	22,500	22,500	45,000	400,000
<b>TOTALS</b>									<b>35,000</b>	<b>35,000</b>	<b>70,000</b>	

1993 ROAD IMPROVEMENT PROGRAM

Budget Number	Project Number	Road Class	Name of Road	Length	Termini	Types of Projects and Remarks	Location	Federal Aid, "A" & "C" Funds	Local Gov't Funding	MTF and Other RCOC Funding	Annual Total All Sources	Estimated Total Proj Cost
<u>1993 Contract Maintenance: Bridge Management</u>												
			To Be Determined				PE	-	10,000	10,000	20,000	200,000
<u>1993 Drainage Improvements</u>												
			To be Determined					-	25,000	25,000	50,000	50,000
1993 PROJECTS SUBTOTAL								5,609,250	2,248,750	1,339,250	9,197,250	
<u>1993 Completion of 1992 Projects in Progress</u>												
<u>Safety Road Widening (4 or More Lanes)</u>												
009-3898-0	38981	P	Orchard Lake	1.5	Ten Mile to I-696	PE (STP)	Farmington Hills	60,000	10,000	10,000	80,000	9,000,000
000-3974-0	39741	P	Dequindre	2.0	14 Mile to 16 Mile	PE ("C")	Troy	15,000	2,500	2,500	20,000	6,540,000
000-3975-0	39751	P	Pontiac Trail	1.3	Walled Lake to S. Commerce	Const (STP)	Walled Lake	1,200,000	200,000	200,000	1,600,000	2,340,000
000-3983-0	39831	P	Livernois	1.0	Avon to Walton	Const ("C")	Rochester Hills	1,875,000	312,500	312,500	2,500,000	5,500,000
009-3984-0	39841	P	Walton Blvd.	2.0	Clintonville to Dixie	PE (Demo)	Waterford	20,000	-	-	20,000	5,510,000
001-4019-0	40191	P	Joslyn	0.3	At I-75 Interchange	PE (Demo)	Auburn Hills	60,000	-	-	60,000	2,000,000
009-4036-0	40361	P	10 Mile	1.0	Southfield to Greenfield.	Const ("C")	Southfield	1,500,000	250,000	250,000	2,000,000	3,000,000
000-4054-0	40541	P	Orchard Lake	0.3	Grand River to Shiawassee	Const ("C")	Farmington	150,000	25,000	25,000	200,000	1,100,000
001-4057-0	40571	P	Cass Lake	1.0	Orchard Lake to Otter	PE, ROW (STP)	Keego Harbor	405,000	67,500	67,500	540,000	3,513,000
001-4058-0	40581	P	Elizabeth Lake	1.5	Cooley Lake to M-59	PE (STP)	Waterford	60,000	10,000	10,000	80,000	1,864,000
001-4067-0	40671	P	12 Mile Road	1.0	Haggerty to Halsted	Const Eng	Farmington Hills	-	-	100,000	100,000	200,000

**1993 ROAD IMPROVEMENT PROGRAM**

Budget Number	Project Number	Road Class	Name of Road	Length	Termini	Types of Projects and Remarks	Location	Federal Aid, "A" & "C" Funds	Local Gov't Funding	MTF and Other RCOF Funding	Annual Total All Sources	Estimated Total Proj Cost
<b>1993 Completion of 1992 Projects in Progress (Continued)</b>												
002-4103-0	41031	P	Crooks	1.0	Auburn to Hamlin	PE ("C")	Rochester Hills	30,000	5,000	5,000	40,000	3,750,000
002-4105-0	41051	P	Maple Road	1.0	Lahser to Cranbrook	PE (STP)	Bloomfield	45,000	7,500	7,500	60,000	2,500,000
000-4137-0	41371	P	Baldwin	1.0	St. Mary's to Morgan	PE & ROW (Demo)	Auburn Hills, Lk. Angelus & Orion	1,000,000	-	-	1,000,000	7,187,500
000-4138-0	41381	P	Baldwin	1.0	Pontiac Limits to St. Mary's	PE & ROW (Demo)	Auburn Hills and Lake Angelus	1,000,000	-	-	1,000,000	6,237,500
000-4139-0	41391	P	Baldwin	0.5	Walton to Pontiac Limits	Const (Demo)	Pontiac	750,000	-	-	750,000	1,555,000
002-4149-0	41491	P	10 Mile	1.0	Evergreen to Southfield	PE ("C")	Southfield	37,500	6,250	6,250	50,000	2,000,000
<b>TOTALS</b>								<b>8,207,500</b>	<b>896,250</b>	<b>996,250</b>	<b>10,100,000</b>	
<b>Pave Gravel</b>												
002-4062-1	40621	P	White Lake	2.0	McKeachie to Teggerdine	PE (STP)	White Lk. Twp.	30,000	-	10,000	40,000	2,155,100
002-4121-1	41211		White Lake	2.0	Teggerdine to Andersonville	PE (Demo)	White Lk. Twp.	30,000	-	10,000	40,000	3,125,000
<b>TOTALS</b>								<b>60,000</b>		<b>20,000</b>	<b>80,000</b>	
<b>Bridges and Bridge Restoration</b>												
008-3780-6	37803		Cooley Lake		At Clinton River	Const (CB)	Waterford	327,750	36,125	36,125	400,000	500,000
008-3885-6	38853	P	Grand River		At C & O RR	PE	Novi	-	55,000	55,000	110,000	1,610,000
008-3886-6	38863	P	Ten Mile		At Rouge River	Const (CB)	Southfield	370,000	40,000	40,000	450,000	500,000
002-4061-6	40613	P	S. Commerce		At Rouge River	Const	Commerce	-	100,000	100,000	200,000	420,000
<b>TOTALS</b>								<b>697,750</b>	<b>231,125</b>	<b>231,125</b>	<b>1,160,000</b>	



1993 ROAD IMPROVEMENT PROGRAM

Budget Number	Project Number	Road Class	Name of Road	Length	Termini	Types of Projects and Remarks	Location	Federal Aid, "A" & "C" Funds	Local Gov't Funding	MTF and Other RCOC Funding	Annual Total All Sources	Estimated Total Proj Cost
<b>Safety Intersections</b>												
002-3779-9		P	Sashabaw		At Maybee	Const (HES)	Independence	292,500	16,250	16,250	325,000	460,000
<b>Other</b>												
			Prior Year Contractor Payments					583,408	96,078	118,633	798,119	
<b>Tri-Party</b>												
			To Be Determined (See detail following)					-	1,000,000	500,000	1,500,000	3,000,000
1993 COMPLETION SUB-TOTAL								9,841,158	2,239,703	1,882,258	13,963,119	
GRAND TOTAL								15,450,408	4,488,453	3,221,508	23,160,369	

**Detail Schedule**  
**1993 Completion of 1992 Projects in Progress**  
**Tri-Party**

001-4107-4	41071		Rochester Road at Hidden Lake		Intersection		Addison Twp.	\$21,289	\$10,644	\$31,933		
002-0003-4							Bloomfield Twp.	114,594	57,297	171,891		
002-0004-4							Brandon Twp.	29,561	14,781	44,342		
002-4061-4	40613		South Commerce Road		Bridge		Commerce Twp.	66,096	33,048	99,144		
002-0007-4							Groveland Twp.	20,618	10,309	30,927		
002-0009-4							Holly Twp.	19,307	9,653	28,960		
002-0011-4							Lyon Twp.	29,793	14,896	44,689		
002-0013-4							Novi Twp.	364	182	546		
002-0014-4							Oakland Twp.	32,479	16,239	48,718		
002-0019-4							Royal Oak Twp.	10,304	5,152	15,456		
002-0023-4							Waterford Twp.	152,126	76,063	228,189		
002-0024-4							West Bloomfield Twp.	143,217	71,609	214,826		
002-0101-4							Auburn Hills	52,109	26,055	78,164		
002-0102-4							Berkley	2,432	1,216	3,648		
002-0104-4							Bingham Farms	4,655	2,327	6,982		

1993 ROAD IMPROVEMENT PROGRAM

Budget Number	Project Number	Road Class	Name of Road	Length	Termini	Types of Projects and Remarks	Location	Federal Aid, "A" & "C" Funds	Local Gov't Funding	MTF and Other RCOC Funding	Annual Total All Sources	Estimated Total Proj Cost
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Detail Schedule  
1993 Completion of 1992 Projects in Progress  
Tri-Party (Continued)

							Birmingham		11,323	5,662	16,985	
							Clawson		13,616	6,808	20,424	
							Ferndale		1,960	980	2,940	
							Franklin		7,678	3,839	11,517	
							Holly Village		11,073	5,536	16,609	
							Keego Harbor		9,838	4,919	14,757	
							Lake Angelus		3,286	1,643	4,929	
							Lake Orion		1,056	528	1,584	
							Lathrup Village		14,299	7,149	21,448	
							Leonard		598	299	897	
							Madison Heights		31,203	15,601	46,804	
							Milford		2,806	1,403	4,209	
							Northville		3,671	1,836	5,507	
							Oak Park		17,784	8,892	26,676	
							Pleasant Ridge		3,296	1,648	4,944	
							Pontiac		22,439	11,220	33,659	
							Royal Oak (City)		20,491	10,245	30,736	
							Southfield (City)		90,037	45,018	135,055	
	40941		Yerkes Drain				South Lyon		15,202	7,601	22,803	\$ 44,000
							Sylvan Lake		3,636	1,819	5,455	
							Wolverine Lake		5,754	2,877	8,631	
			To Be Determined						10,010	5,006	15,016	
							<b>TOTALS</b>		<b>1,000,000</b>	<b>500,000</b>	<b>1,500,000</b>	

**1993 ROAD IMPROVEMENT PROGRAM**

Budget Number	Project Number	Road Class	Name of Road	Length	Termini	Types of Projects and Remarks	Location	Federal Aid, "A" & "C" Funds	Local Gov't Funding	MTF and Other RCOC Funding	Annual Total All Sources	Estimated Total Proj Cost
<b>1993 Addendum*</b>												
001-4019-0	40191	P	Joslyn	0.3	At I-75 Interchange	Const (Demo)	Auburn Hills	1,500,000	-	-	1,500,000	2,000,000
000-4137-0	41371	P	Baldwin	1.0	St. Mary's to Morgan	Const (Demo)	Auburn Hills Lk. Angelus & Orion	3,500,000			3,500,000	7,187,500
000-4138-0	41381	P	Baldwin	1.0	Pontiac Limits to St. Mary's	Const (Demo)	Auburn Hills and Lake Angelus	3,500,000			3,500,000	6,237,500
009-3984-0	39841	P	Walton Blvd.	1.75	Dixie Hwy. to Clintonville	Const (Demo)	Waterford	4,500,000			4,500,000	5,510,000
002-4118-0	41181	P	Williams Lake	1.0	Airport to Dixie Hwy.	ROW (Demo)	Waterford	1,000,000			1,000,000	4,467,000
		P	Walton Blvd.	1.0	Opdyke to Squirrel	PE (Demo)	Auburn Hills	100,000			100,000	6,000,000
		P	Joslyn		At RR Tracks	PE (Demo)	Orion	100,000			100,000	3,000,000
<b>TOTALS</b>								<b>14,200,000</b>			<b>14,200,000</b>	

\* The above projects are subject to Federal funding approval.

**1 9 9 3 R O A D I M P R O V E M E N T P R O G R A M**  
 Estimated Expenditures for Fiscal Year Ending 9/30/93

**S U M M A R Y**

<u>PROJECT TYPE</u>	<u>Federal Aid, "A" and "C" Funds</u>	<u>Local Gov't. Funding</u>	<u>MTF and Other RCOC Funding</u>	<u>Total All Sources</u>
1993 Safety Road Widening	\$4,594,250	\$ 998,250	\$ 489,750	\$6,082,250
1993 Safety Intersections	275,000	92,500	117,500	485,000
1993 RRR	500,000	88,000	102,000	690,000
1993 Safety Bridges	0	35,000	35,000	70,000
1993 Contract Maint.: Bridge Mgmt.	0	10,000	10,000	20,000
1993 Drainage Improvements	0	25,000	25,000	50,000
1993 Pave Gravel Roads	240,000	0	60,000	300,000
1993 Tri-Party	0	1,000,000	500,000	1,500,000
Sub Total	<u>\$5,609,250</u>	<u>\$2,248,750</u>	<u>\$1,339,250</u>	<u>\$9,197,250</u>
<b>1993 Completion of 1992 Projects in Progress</b>				
Safety Road Widening	\$8,207,500	\$ 896,250	\$ 996,250	\$10,100,000
Safety Intersections	292,500	16,250	16,250	325,000
Pave Gravel Roads	60,000	0	20,000	80,000
Bridges and Bridge Restoration	697,750	231,125	231,125	1,160,000
Tri-Party	0	1,000,000	500,000	1,500,000
Other	583,408	96,078	118,633	798,119
Sub Total	<u>\$9,841,158</u>	<u>\$2,239,703</u>	<u>\$1,882,258</u>	<u>\$13,963,119</u>
<b>Total 1993 Road Improvement Program</b>	<b>\$15,450,408</b>	<b>\$4,488,453</b>	<b>\$3,221,508</b>	<b>\$23,160,369</b>
Special Assessment District (S.A.D.) Program				2,325,000
<b>GRAND TOTAL</b>				<b><u>\$25,485,369</u></b>

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**PROGRAM SOURCES**

<u>Federal &amp; State</u>		<u>Local</u>		<u>R C O C</u>	<u>Road Improvement Program Disbursements</u>	
STP*	\$3,094,327	Cities	\$2,315,176	\$3,221,508	Contractor Payments	\$15,974,869
HES	589,550	Townships	907,777		Right-of-Way Payments	2,691,250
Critical Bridge	780,781	County	1,265,500		Sub Total	<u>\$18,666,119</u>
Demo	3,090,000					<b>\$18,666,119</b>
State "A"	8,250				Traffic Safety	290,000
State "C"	7,887,500				Engineering	3,564,250
					Engineering Consultants	640,000
	<u>\$15,450,408</u>		<u>\$4,488,453</u>	<u>\$3,221,508</u>	<b>TOTAL</b>	<b><u>\$23,160,369</u></b>

\* In 1992, FAUS and FAS were incorporated into STP.

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