



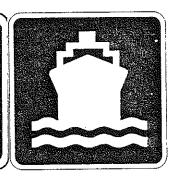








MICHIGAN DEPARTMENT OF TRANSPORTATION



# EXECUTIVE SUMMARY

1984-1985

**PROGRAM** 

Multi-Modal

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In May, of 1983, a task force was selected within the Department of Transportation to develop a multi-modal program which would relate to identified transportation needs, and remain consistent with State Transportation Commission policy as set forth in the State Transportation Plan.

The program development process uses the identified transportation needs and condition information to allocate resources into program categories. Each category is a functional area of capital expenditure. This structure provides an overview of how department resources have been allocated against the transportation needs of Michigan.

The goal of the F.Y. 1984-85 Multimodal Transportation Program is to preserve Michigan's existing transportation system -- long viewed as one of the best in the country -- and to promote economic development in our state. This program presents plans for aeronautics, comprehensive (public) transportation, and highway transportation improvements. In developing this program, transportation needs and system condition information were analyzed. Resources for each mode were then allocated by program category to provide a convenient and understandable summary of how financial resources will be utilized to meet transportation goals. Specific projects will be scheduled for implementation during F.Y. 1984-85 within these program allocations.

The largest component of the \$33.3 million Aeronautics Program is oriented toward bringing existing airports up to recommended standards based on the current use of the airport. This category is allocated \$12.9 million. The next largest component ~~ with an allocation of \$8.2 million ~~ is development required to increase system capacity, such as new runways and apron and terminal expansion. Other components are: new airports ~ community, \$4.7 million; reconstruction ~ \$3.5 million; upgrading airport role ~ \$2.4 million; equipment and buildings ~ \$1 million; and safety/ special projects ~ \$.6 million. Allocations include state, local, and federal funds. It is estimated that this program will fund airport development projects in 27 locations throughout the state.

The Comprehensive Transportation Program, totaling \$106.7 million\*, is allocated by mode in accordance with provisions of Act No. 51 of 1951, as amended. The allocations, including CTF funds, loan funds and federal funds, are: statutory operating assistance for local transit services ~ \$67.3 million\*; new small bus and specialized services ~ \$4.9 million\*; intercity passenger services ~ \$9.6 million\*; intercity freight services ~ \$5.9 million\*; transportation development account ~ \$19 million\*.

This comprehensive transportation program will preserve essential services in 13 urbanized and 47 nonurbanized local transit systems, 20 new small bus systems, and 20 specialized services systems designed to meet the transportation needs of seniors and handicappers. It will support development of intercity bus services, the purchase of 12 vehicles in the

\*Revised estimate, see page 7.

intercity bus loan program, development of intercity passenger terminals and continuation of a two-year demonstration of an integrated transportation information system. The program includes funding for the International Limited rail passenger service in the Chicago-Port Huron corridor and for Grand Rapids-Chicago rail passenger service. It reflects both the third step in a three-year phase-out of state operating assistance for rail freight lines and increased emphasis on providing a rail transportation track structure to facilitate preservation of essential rail freight services.

The Highway Program reflects the State Transportation Commission goals of maintaining the essential system, completing the interstate system, and minimizing widening improvements. It includes projects for the completion of I-696 and I-69 and the resurfacing of I-75. The minimum allocations by program category, including state and federal funds totaling \$263.4 million. are:

	Millions
Bridge Rehabilitation	\$ 13.8
Bridge Replacement	3.0
Environmental	16.8
Major Widening	24.0
Minor Widening	5.8
New Route	33.1
Reconstruction	67.5
Relocation	27.9
Restoration & Rehabilitation	47.7
Resurfacing	6.9
Safety	8.0
Traffic Operations	7,8
Transportation Systems Mgmts.	.9
TOTAL	\$263,4

#### TOTAL.

It is estimated that this highway construction and improvement program will fund reconstruction of 63 miles of the state trunkline system, restoration and rehabilitation of 75 miles, resurfacing of 29 miles. It will also provide safety improvements on 117 miles, environmentally related work (such as sound barriers) on 174 miles, and other improvements. The program meets the requirement in Act 51 that 90 percent of net revenue be expended for maintenance of highways, roads, streets, and bridges.

This Executive Summary provides additional information on state transportation funding, the Aeronautics Program, the CTF Program, and the Highway Program. Project lists are included where appropriate. It has been updated to reflect revised revenue estimates as of April, 1984.

There are four state-administered funds that serve as the source of financing for Michigan's multi-modal transportation program: the Michigan Transportation Fund, the State Trunkline Fund, the Comprehensive Transportation Fund, and the Aeronautics Fund.

The Michigan Transportation Fund (MTF) was established by Act No. 51 of 1951, as amended, to receive transportation revenue. Net motor fuel taxes and vehicle registration fees are deposited into the MTF, which is then distributed as follows: after deductions for collection costs, the state Waterways Fund, the Mackinac Bridge Authority, and the Critical Bridge Program, 10 percent of the MTF is allocated to the Comprehensive Transportation Fund (CTF); the balance is then allocated for highway, road and street purposes among the State Trunkline Fund (STF) - 39.1 percent, counties - 39.1 percent, and cities and villages - 21.8 percent. This distribution formula will expire on September 30, 1985. A task force created by Act 51 will recommend a distribution formula for F.Y. 1986 and thereafter. It is estimated that revenue received by the MTF in F.Y. 1985 will total \$911 million\*.

The STF is expected to receive \$296 million\* from the MTF in F.Y. 1985. Act 51 establishes the following priorities for the STF: payment of bonds and notes, operating expenses of the fund, maintenance of state trunkline highways and bridges, and improvements to the state trunkline and interstate highway systems. These state funds are used to the extent possible to capture federal-aid highway funds.

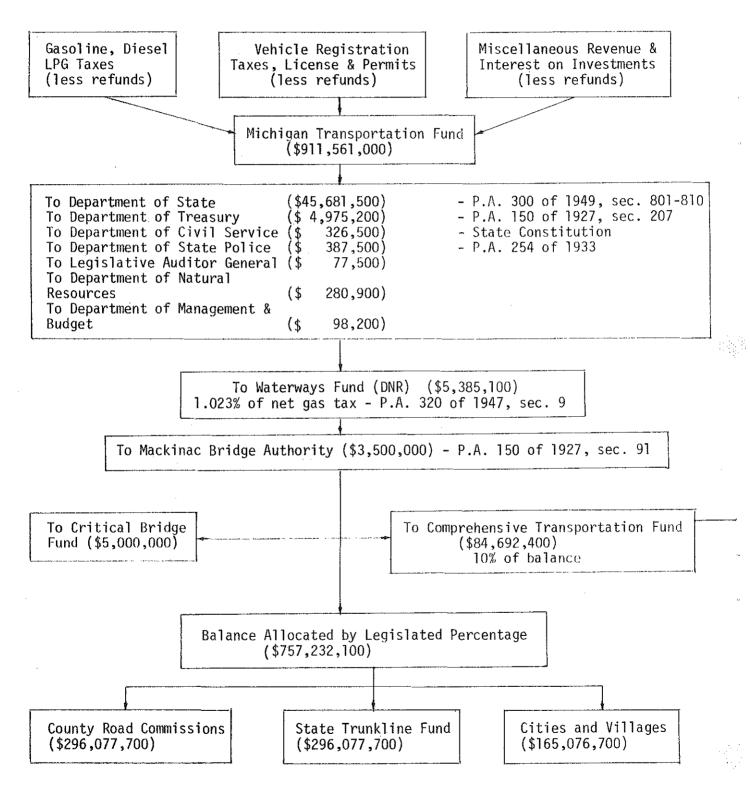
CTF revenues are derived principally from a 10 percent share of the MTF and a portion of the sales tax on motor vehicle-related items. Sixty percent of net motor vehicle-related sales tax revenue is deposited in the School Aid Fund, and 15 percent is distributed as revenue sharing to cities, villages and townships. The remaining 25 percent is divided between the CTF and the state's General Fund, with the provision that the CTF is to receive not less than 27.9 percent of the 25 percent. For F.Y. 1985, the Governor's budget recommendation includes this statutory minimum for the CTF. In F.Y. 1985, it is estimated that the CTF will receive \$84.7 million\* from the MTF and \$35.3 million\* from motor vehicle-related sales tax revenue. The state CTF funds are used to the extent possible to capture federal public transportation funds.

The Aeronautics Fund, established by Act No. 327 of 1945, receives revenue from aviation fuel taxes. It is estimated this revenue will total \$3.4 million in F.Y. 1985. These state funds are used to the extent possible to match federal airport development funds.

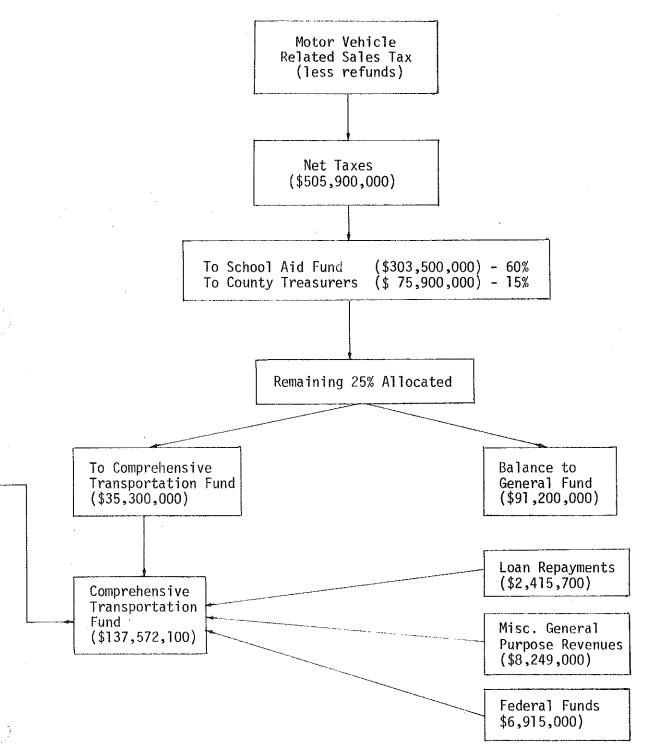
The following diagrams illustrate the sources and estimated amounts of revenue for these four funds.

\*Revised estimate, see page 7.

#### FISCAL YEAR 1984-85



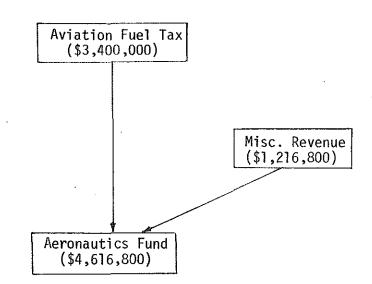
FISCAL YEAR 1984-85



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FISCAL YEAR 1984-85



The following schedule shows significant changes to the revenue estimates for transportation funds between this executive summary and the original program document.

#### Schedule of Revised Funding Estimates May, 1984

Funds	Original Estimates	Revised Estimate
Michigan Transportation (MTF)	\$880,095,000	\$911,561,000
Waterway	5,264,000	5, 385, 100
State Trunkline (STF)	284,990,400	296,077,700
Counties	284,990,400	296,077,700
Cities & Villages	158,895,000	165,076,700
Comprehensive Transportation (CTF)		
MTF	81,547,900	84,692,400
Motor Vehicle Taxes	33,400,000	35, 300, 000

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#### Introduction

Act 327, P.A. 1945 established a separate Aeronautics Funds. Revenue for the fund for fiscal year 1984-85 is derived as follows:

	Percent	Amount (Millions)
Aviation fuel tax	11.2	3.4
Miscellaneous		
(interest, sale of publications, licensing, etc.)	4.0	1.2
Fund carry-over	2.0	0.6
Subtotal - state funds	17.2	5.2
Federal grants & local contributions	82.8	25.0
	100.0%	30.2

The distribution of funds for F.Y. 1984-85 is included in Table A-1.

The funds are used for planning, airport construction, general development and administration, including safety and licensing activities. Airport construction and development projects generally are funded in 90-5-5 ratio by federal, state, and local agencies, respectively. Airports must be on the national airport system to be eligible for federal funding. Improvements at airports not on the national airport system are financed equally by state and local agencies. Not more than \$250,000 of state funds may be allocated to a single airport in any two consecutive years.

#### Priorities and Program Categories

State funds are allocated to airport development projects on the basis of the following priorities:

1. Safety

Lighting, approach clearing and runway surface treatments.

2. Primary airside

Primary runways, taxiways, aprons and associated land.

## Table A-1

#### Aeronautics Fund

#### FY 84-85 Distribution of Funds

		<u>State</u>	Federal	Local	Total
1.	Operations and Administration				
	a) Bureau of Aeronautics b) Bureau of Transportation Planning c) Grants to other funds	\$2,761,200 200,900 398,200			\$ 2,761,200 200,900 398,200
	Subtotal	\$3,360,300			\$ 3,360,300
2,	Airport Projects				
	a) Federal/State/Local b) State/Local Airport Construction c) Airport Plans	\$830,000 250,000 20,000	\$19,328,000	\$4,195,800 350,000 20,000	24,353,000 600,000 40,000
	Subtotal	\$1,100,000	\$19,328,000	\$4,565,000	<b>\$24,993,</b> 000
3.	Air Transport Program	\$ 769,700			\$ 769,700
	Total	\$5,230,000	\$19,328,000	\$4,565,800	\$29,123,300

3. Secondary airside

Secondary runways, taxiways, aprons and related development.

4. Primary landside

Terminal buildings, access roads, tie-downs, and T-hanger taxiways.

5. Secondary landside

Fencing, storage buildings, and service roads.

State funding is sufficient to allow the state to participate in projects into priority area three. Remaining projects are funded on a 90 percent federal and 10 percent local basis.

Each project is then assigned to one of eight program categories for the purpose of identifying projects by improvement types. The eight program categories are listed and described below:

#### 1. Special Programs/Safety

This category includes development to implement safety and security requirements of rules and regulations and highest priority safety work. In addition, this category includes economic development projects of special significance.

2. Reconstruction

This includes development required to preserve, repair, or restore the functional integrity of the landing area. Routine maintenance is excluded. Typical projects include rehabilitation of pavements, including seal coating, and replacement or rehabilitation of lighting systems.

3. Standards

This is development oriented towards bringing existing airports up to recommended standards based on the current use of the airport. Capacity development is excluded, as is development for the purpose of accommodating larger aircraft types not included within the current design category of the airport.

#### 4. Upgrading Airport Role (Upgrade)

This category is oriented towards development which provides for accommodating larger aircraft types and/or longer nonstop routes. This category covers items intended to provide for future changes in the use of the airport as compared with "Standards" development which is oriented towards current deficiencies.

#### 5. Capacity Development (Capacity)

This category is oriented towards development required to increase system capacity. It includes any development that will increase the capacity of an airport beyond its present designed use (standards). Typical development includes new runways and apron and terminal expansion.

#### 6. New Airports ~ Capacity

This category is intended for all new reliever airports and new commercial service airports which are constructed to increase metro-politan system capacity.

#### 7. New Airports ~ Community

This category is used for any new airport which will be the sole airport serving a community. It will normally be a general aviation airport meeting community needs for an adequate airport. A small number of commercial service (new or replacement) airports outside of the large metropolitan areas will also be included.

8. Equipment and Buildings

This category includes maintenance equipment and buildings including the airport terminal. Unless snow removal equipment is safety related, it is also included in this category.

#### Resources by Program Categories

The funding for each of the eight program categories for FY 1984~85 is given below:

		Total	Federal	State	Local
1. 2. 3. 4. 5. 6. 7. 8.	Safety/Special Projects Reconstruction Standards Upgrading Airport Role Capacity Development New Airports ~ Capacity New Airports ~ Community Equipment & Buildings	\$ 640,000 3,470,461 12,894,679 2,411,400 8,191,575 -0- 4,731,042 985,000	\$ 576,000 2,988,415 11,460,588 2,170,300 6,111,967 -0- 4,257,938 	\$ 32,000 128,524 259,608 90,000 236,219 -0- 204,667 -0-	\$ 32,000 353,522 1,174,483 151,100 1,843,389 -0- 268,437 98,500
	TOTALS:	\$33,324,157	\$28,451,708	\$ 951,018	\$3,921,431

#### COMPREHENSIVE TRANSPORTATION

#### Introduction

The Comprehensive Transportation Fund (CTF) is a special revenue fund created for the purpose of planning and developing public transportation systems and services within the state. The CTF receives 10% of the Michigan Transportation Fund (after deductions), a percentage of the motor vehicle related sales tax, available federal matching funds, and earnings on investments and miscellaneous revenues.

The CTF is distributed to eligible authorities, eligible governmental agencies, intercity bus carriers, rail carriers, and to the department for public transportation purposes. Act 51 of 1951, as amended, describes in Section 10e, (2) through (4), the priority distribution of the CTF appropriations. The first priority is principal and interest on bonds and notes. The second priority is CTF administration. The balance of the CTF is to be expended pursuant to the state transportation program approved by the Commission according to the following percentages:

65% Local transit operating	
5% New small bus and specialized s	services
8% Intercity passenger	
5% Intercity freight	
17% Transportation development acco	ount

100%

#### Revenue Estimates and Proposed Allocation by Program

Table CTF~1 shows the estimated revenue for FY 1984-85 for the Comprehensive Transportation Fund.

Table CTF-1

#### Comprehensive Transportation Fund

#### 1984-85 Estimated Revenue

Gas and Weight Tax	\$ 84,692,400
Sales Tax	35,300,000
Miscellaneous	8,249,000
CTF Subtotal	\$128,241,400
Intercity Bus Loan Fund	\$ 1,840,700
Rail Loan Fund	575,000
Loan Funds Subtotal	\$ 2,415,700
UMTA Section 18*	\$ 4,000,000
UMTA Section 8**	330,000
UMTA Section 6***	1,280,000
UMTA Section 16 (b)(2)****	800,000
Federal Railroad Administration (Rail Freight)	505,000
Federal Funds Subtotal	\$ 6,915,000

Total Appropriated Funds

\$137,572,100

\* Grant program for areas other than urbanized areas.

\*\* Planning and technical studies.

\*\*\* Research, development, and demonstration projects.

\*\*\*\* Transportation services to meet the needs of the elderly and the handicapped.

Table CTF-2 summarizes the distribution of CTF funds to the various priority categories discussed in the introduction.

#### Table CTF~2

#### Comprehensive Transportation Fund

Summary of Distribution of Funds FY 1984-85

	CTF	Loan	Federal	Total
	\$ 22,339,000			\$ 22,339,000
Interfund Transfers	1,017,600			1,017,400
Administration	7,525,500			7,525,500
Local Transit Operating (65%)	63,283,500			63,283,500
Non-Urban Bus Operating-Capital			\$4,000,000	4,000,000
New Small Bus (5%)	4,868,000			4,868,000
Intercity Passenger (8%)	7,788,700	\$1,840,700		9,629,400
Intercity Freight (5%)	4,868,000	575,000	505,000	5,948,000
Transportation Development (17%			2,410,000	18,961,100
	\$128,241,400	\$2,415,700	\$6,915,000	\$137,572,100

Table CTF-3 represents the distribution of CTF funds by program category and projects.

#### Table CIF-3

#### Comprehensive Transportation Fund By Program Category FY 1984-85

	State	Loan	Federal	Total
1. Local Iransit Operating				
a) Statutory operating assistance b) Non-urbanized operating/capital	\$63,283,500		\$4,000,000	\$63,283,500 4,000,000
Subtotal	\$63,283,500	- 0 -	\$4,000,000	\$67,283,500
2. New Small Bus and Specialized Services	\$ 4,868,000			\$ 4,868,000
3. Intercity Passenger Services	· .			
a) Intercity Bus Operations b) Intercity Bus Loan c) Terminal Development d) Transportation Information System e) Rail Passenger Services f) Water Passenger Services	$ \begin{array}{c} 1,408,500\\ 770,200\\ 1,635,000\\ 375,000\\ 3,000,000\\ 600,000 \end{array} $	\$1,840,700		\$ 1,408,500 2,610,900 1,635,000 375,000 3,000,000 600,000
Subtotal	\$ 7,788,700	\$1,840,700	- 0 -	\$ 9,629,400
4. Intercity Freight Services				
a) Rail Freight Operating b) Property Management c) Rail Freight Capital d) Port Assistance	\$ 1,035,300 1,900,000 1,832,700 100,000	\$ 575,000	\$ 505,000	\$ 1,035,300 1,900,000 2,912,700 100,000
Subtotal	\$ 4,868,000	\$ 575,000	\$ 505,000	\$ 5,948,000
5. Transportation Development Account				
a) Bus Capital b) Vanpooling c) Statewide Ridesharing d) Park and Ride e) SEMTA CAIS f) Commuter Rail g) Demonstration and Development h) Technical Studies	$ \begin{array}{c}         2,943,500 \\         125,000 \\         200,000 \\         300,000 \\         1,500,000 \\         900,000 \\         300,000 \\         300,000 \\         25,000         $		\$ 800,000 1,280,000 330,000	\$ 3,743,500 125,000 200,000 300,000 1,500,000 1,500,000 1,580,000
i) Rail Freight Capital j) Local Transit Assistance	25,000 3,900,000 6,357,600		270 <sub>9</sub> 000	355,000 3,900,000 6,357,600
Subtotal	\$16,551,100	\$ - 0 -	\$2,410,000	<u> </u>
Total Program Funds	\$97,359,300	\$2,415,700	\$6,915,000	\$106,690,000
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#### HIGHWAYS

#### Introduction

Public Act 51 of 1951, establishes the current legal framework for developing and maintaining the state's total road and street network. It puts basic control of State Trunkline Highway financing under the State Transportation Department, which is governed by a six member Transportation Commission. The goals approved by the Commission, via the 1982 State Transportation Plan, emphasize maintaining the essential system, completing the interstate system and minimizing major widening improvements. The FY1984-85 Construction Program reflects these goals.

The program includes only routes eligible for Federal-Aid highway funds, referred to as the Federal-Aid Systems. Routes in the Federal Aid System are the major facilities, such as state trunklines, major county roads, and major city streets. This program includes only state trunk-lines.

Four types of Federal-Aid Systems in the program are: Federal-Aid Interstate, Federal-Aid Primary, Federal-Aid Urban, and Federal-Aid Secondary. Federal-Aid Interstate roadways interconnect the major nationwide population and economic centers. Federal-Aid Primary roads carry high volumes of long distance traffic, have route continuity, and connect important state socio-economic centers. Federal-aid urban roads and streets have significance for travel within urban and urbanized areas. Federal-aid Secondary roads have significance for travel between counties, and carry substantial regional and inter-county traffic between populated places.

#### Funding Sources

Improvements to the trunkline are funded primarily by federal and state revenues. A discussion of these revenues is provided below:

#### Federal Funds

Highway Trust Funds are collected from taxes on motor fuel and other auto related purchases as directed by federal law. Congress authorizes the federal aid highway programs and determines the funding for each program. Distribution of these funds to the states is accomplished by apportionments or allocation. Apportionments are legislatively determined and are distributed by formula. Allocations are administratively distributed on a discretionary basis, usually on a project by project basis. Only apportionments are available for inclusion in this program.

The use of monies apportioned to the states through various programs are limited through obligational authority. With only occasional exceptions, once a state reaches its obligational limitation for the time period, additional funds may not be obligated until there is an increase in the obligational authority. The estimated obligational limitation placed on F.Y. 1984~85 apportioned funds is \$225 million, while the estimated apportionment to the state is \$310 million. The federal-aid program is based on a reimbursement process. The state begins projects with its own funds, and is reimbursed the federal share as various portions of the work are completed.

#### Funding Categories

Each federal funding category and its estimated apportionment is described below.

#### 1. Interstate-\$131.1 million

The apportionment formula for the interstate category is the ratio of the federal aid needed to complete the approved interstate system in Michigan to the total of such federal aid needed in all states. This money can only be used to complete construction of the approved interstate routes. The amount of \$131.1 million includes an estimated carryover of \$58.5 million.

#### 2. Interstate 4R-\$76.9 million

Projects on the interstate system, such as resurfacing, restoration, rehabilitation, and reconstruction are eligible for this program. Factors used to apportion these funds are system lane miles and system vehicle miles traveled on the interstate system.

Each apportionment of Interstate 4R funds is available for a total of four years. The amount unobligated at the end of four years is redistributed to the other states.

#### 3. Primary-\$74.2 million

Construction projects on the primary routes are eligible for primary funds. Factors that determine the apportionment to the states are the ratio of area, rural population, rural delivery route mileage and urban population in places with 5,000 or more.

#### 4. Secondary-\$6.4 million

Construction projects on secondary marked routes receive apportionments through the secondary funding program. Factors that are used to determine the amount of apportionment are the ratio of area, rural population and rural delivery route mileage, and intercity mail route mileage. By federal law, at least 50 percent of these funds must be passed through to the counties. The Michigan Transportation Commission policy is that 66 percent of available secondard funds will be passed through to the counties.

#### 5. 85% Minimum Allocation~\$47.4 million

Michigan has historically been a "donor state", receiving Federal Highway Trust Fund apportionments equivalent to 70~72 percent of contributions. The Surface Transportation Assistance Act of 1982 stipulated that no state would be apportioned less than 85 percent of its estimated contribution to the Trust Fund. Therefore, Michigan now receives an "85 percent Floor" --- theoretically the difference between our total program apportionment and our estimated contributions --which can be used to augment any of the other federal funds. The above amount is an estimate, which is subject to change.

#### 6. Other Programs-\$31.2 million

The bridge replacement & rehabilitation, hazard elimination, and rail highway crossing programs are also apportioned by formula. These monies are divided among the department, counties, and cities at the discretion of the department. As a rule, the department uses very little of the money, especially in the bridge relacement and rehabilitation program.

#### State Funds

The state's share of the Michigan Transportation Fund (MTF) is used to finance improvements to the state trunkline system, including nonmotorized facilities. These state funds may be used to match federal aid and to fund 100 percent of a project. Each use is discussed briefly below.

#### 1. Matching Federal Aid

State funds are combined with federal funds in a specified ratio for most highway improvements. Generally, the ratio varies from 90 percent federal and 10 percent state funding for interstate improvements, to 77 percent fedeal and 23 percent state for primary route improvements. Other special programs are funded by federal aid at approximately 70 to 100 percent.

#### 2. 100 Percent State Funded Projects

Projects in this category do not make use of federal funds; the state pays for the entire project. Since one of MDOT's goals is to maximize the use of federal assistance, this category is a small portion of the annual program. These projects may be ineligible for federal aid, or can result from unforseen circumstances such as hazards caused by spring breakup, drainage problems, or local requests.

#### Act 51 Program Expenditure Restriction

Sections 11(2) and 11(3) of Act 51 of the Public Acts of 1951, as amended, require a specific application of the annual state and federal revenues credited to the State Trunkline Fund. At least ninety percent of the fund, less certain amounts described below, must be expended for maintenance of highways, roads, streets, and bridges. The restriction in programming funds is known as a 90/10 split. The requirement shall be waived to the extent that applying it would make the state ineligible for federal funds. Act 51 does not restrict interstate funds until the end of 1984, but the exemption is needed to continue to allow completion of the interstate system.

The Act defines maintenance to include several activities other than snow removal, drainage, sealing, patching, and ordinary repairs associated with routine maintenance. These other activities include safety projects; the preservation, reconstruction, resurfacing, restoration, and rehabilitation of highways, roads, streets, and bridges; widening of less than a lane's width; adding short turning lanes, correcting substandard intersections; and the activities of the Department's Bureau of Highways for implementing these projects.

Activities specifically excluded from maintenance are: (1) projects increasing capacity for routes serving through traffic; and (2) upgrading aggregate surface roads to a hard surface. (There are no trunkline roads with an aggregate surface.)

The department is in compliance with the 90/10 requirement for federal and state funds.

#### Program Categories

Program categories are based on the purpose of transportation improvements and are consistent with the Federal Highway Administration capital outlay expenditures categories. The categories are listed and described below.

All bridges are contained in two categories: <u>BRIDGE REHABILITATION</u> and <u>BRIDGE REPLACEMENT</u>. Deck overlay and other repair work that does not replace the bridge or any part of its structure is included in bridge rehabilitation. Bridge replacement includes actual replacement of the bridge or any part of its structure.

ENVIRONMENTALLY RELATED projects are those that improve the environment around the highway such as landscaping and sound barriers.

MAJOR WIDENING projects include construction that adds one lane or more to the roadway. Minor widening includes projects that require less than one lane. Many of the widening projects also require resurfacing as part of the total project.

NEW ROUTES are entirely new sections of roadway and the associated Improvements necessary such as landscaping or sewer construction.

RECONSTRUCTION projects are major construction improvements that upgrade the facility. These also include railroad reconstruction projects that upgrade the highway/railroad crossing. A typical railroad reconstruction project includes the approach plus the crossing reconstruction.

RELOCATION is self explanatory, but where a major facility is relocated, the necessary improvements associated with it are also relocated.

RESTORATION and REHABILITATION projects are basically replacement-inkind. Facilities such as buildings can be included in this category. Pavement recycling may be used for highway projects.

Any projects whose primary goal is replacement of the existing surface are included in the RESURFACING program category.

Lighting projects and pavement marking are examples of <u>SAFETY</u> projects, as are intersection improvements, turn flares and potentially hazardous locations. Projects in this category serve to improve the safety of the system.

In the current program, the <u>TRAFFIC OPERATIONS</u> category consists soley of electronic surveillance systems. <u>TRANSPORTATION SYSTEM MANAGEMENT (TSM)</u> projects include such projects as <u>left turn lanes</u> and ramp meters.

#### Priority Project Lists

Two construction project lists are being used to program 1984-1985 highway improvements. The use of two lists provides a mechanism for developing program priorities when the state's obligational authority does not meet its apportionment. The two lists are referred to as the "A" list and "B" list.

The A list contains priority projects that can be built with the current estimated obligational authority. These projects are ready for construction, and are the most likely to be let in fiscal year 1985.

The B list consists of active projects of a lesser priority than the A list projects. However, they can be let if additional obligational authority is released to meet the state's apportionment. Additionally, a B list project may be let if an A list project is delayed.

Programming with two lists in this manner allows the state to be prepared to let projects when additional aid becomes available.

The distribution of estimated project costs according to program category for the A list and B list of projects are shown in Tables H1 and H2.

#### TABLE H-1

#### 1985 PROGRAM CATEGORY COST DISTRIBUTION FOR "A" LIST PROJECTS

	<u>Cost (thous)</u>	%
Bridge Rehabilitation	13,800	5.2
Bridge Replacement	3,023	1.1
Environmentally Related	16,835	6.4
Major Widening	24,016	9.1
Minor Widening	5,835	2.2
New Route	33,080	12.6
Reconstruction	67,517	25.6
Relocation	27,913	10.6
Restoration & Rehabilitation	47,676	18.1
Resurfacing	6,917	3.6
Safety	8,017	3.0
Traffic Operations	7,839	3.0
TSM	909	0.3
TOTAL	\$263,377	100%

#### TABLE H-2

#### 1985 PROGRAM CATEGORY COST DISTRIBUTION FOR "B" LIST PROJECTS

	<u>Cost (thous)</u>	%
Bridge Rehabilitation	881	1.0
Bridge Replacement	99	0.1
Environmentally Related	50	0.1
Major Widening	13,220	13.4
Minor Widening	1,100	1.1
New Route	66,530	67.3
Reconstruction	6,505	6.6
Relocation	3,557	3.6
Restoration & Rehabilitation	4,899	5.0
Resurfacing	285	0.3
Safety	1,681	1.7
Traffic Operations	0	0
TSM	0	_0
TOTAL	\$ 98,807	100%

~20~

A COMPARISON OF THE 1984-85 CONSTRUCTION PROJECT LIST TO THE TRUNKLINE CONDITION INFORMATION

In order to assess how well the construction program is addressing segments of the highway system that are in poor condition, a comparison of construction projects to the sufficiency condition ratings was made. This comparison is discussed below for both the A and B list:

<u>Widening</u> projects on the A list amount to \$24 million on 25.1 miles. Of the miles being widened, 15.8 are on poor capacity rated miles at a cost of \$14.2 million. The remaining eight miles being widened are evenly distributed among intermediate and good capacity ratings at a cost of \$9.8 million.

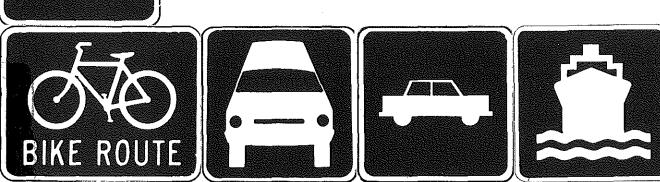
When projects are proposed, projections of traffic growth for 20 years are required if federal aid urban matching funds are to be used. Project locations where there is good or intermediate capacity but future traffic projections predict poor capacity conditions, include M~53 in Huron County, US~131 in Kent County, M~52 in Lenawee County, US~24 in Monroe County and M~85 in Wayne County. All of these projects have a poor surface rating or are contiguous to a poor capacity rated section.

Resurfacing, reconstruction, restoration and rehabilitation (4R) projects improve 144.6 miles at a cost of \$69.8 million. Of this, 116.6 miles correct poor surface rated conditions at a cost of \$63.1 million. There are 24.1 miles of good rated surface conditions corrected which cost \$5.4 million. One project, I-75 in Roscommon County, accounts for the 24.1 miles. Improvements are being made on this segment because of the pavement age and type. Much of the interstate system was constructed in the early 1960's, so reconstruction of this portion is required at this time.

The projects on the B list can be budgeted if all apportioned funds are made available to the state. These projects amount to \$96.1 million on 72.8 miles. The majority of the project costs (67 percent) are in the new route program category. All of the new route projects are I-696 completion.

<u>Widening</u> projects on the B list are on 7.5 miles and cost \$13.2 million. Of these miles, all but two miles have poor capacity ratings. The two mile project on I-94 in Washtenaw County, currently has a good capacity rating, but forecasted traffic will create capacity problems that warrant widening. Additionally, this segment is the only two lane section of freeway at that location, which causes problems with traffic flow.

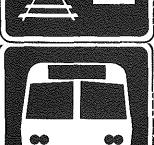
Resurfacing, reconstruction, restoration and rehabilitation (4R) projects are on 20.4 miles and cost \$9 million. Of these 4R projects, seven miles correct poor surface conditions at a cost of \$3 million. However, 6.5 miles rated intermediate in surface also have had a poor base which warrants reconstruction.





## MICHIGAN DEPARTMENT OF TRANSPORTATION









1984-1985

Multi-Modal

#### Michigan Department of Transportation James P. Pitz, Director

Michigan Transportation Commission William C. Marshall, Chairperson Lawrence C. Patrick, Jr. Hannes Meyers, Jr. Carl V. Pellonpaa Weston E. Vivian Rodger D. Young

Michigan Aeronautics Commission Ronald C. Heinlein, Chairperson Mrs. R. W. Chamberlain, Vice Chairperson John A. LaFalce Daniel Knopper Herbert E. Swan James P. Pitz Col. Gerald L. Hough William G. Turney

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#### PROGRAM STRUCTURE

Transportation provides the life blood of Michigan. Our economic promise, in this time of change, is increasingly dependent on good transportation. Providing quality transportation for Michigan is a challenge. Our location in the midst of the Great Lakes moderates the temperature, increases rain and snowfall, and provides a wealth of lakes, forests and farm land. Natural resources are plentiful and our lands and waters provide a recreation wonderland. But the environment also has drawbacks; it accelerates the deterioration of our highways and results in an increased cost of winter maintenance. The lakes inhibit rail and highway movements, forcing the major transcontinental travel routes to the north and south. Michigan's peninsular geography provides great advantages, but makes the provision of transportation an expensive and difficult task.

Good transportation is intrinsic to a successful economy. Michigan's transportation system, long viewed as one of the best in the country, has required increasing public support since the 1960s. The decline of public transportation and the railroads were balanced by the growth of highway and air transportation. Throughout this period public support, in one form or another, has been essential to provide balanced transportation. Then the impacts of the 1973 and 1979 oil shortages, combined with world-wide inflation, caused a decline in revenues as well as increased costs. The result has been a crisis in transportation.

Congress and the Michigan Legislature acted in December, 1982 to address the crisis. Both approved tax packages with Congress enacting the first increase in the federal fuel tax in 23 years. Michigan raised its fuel taxes and converted to a variable-rate structure indexed to the cost of highway maintenance and total fuel consumption. The rate is capped at 15 cents. License plate fees were also changed to an ad valorem system.

In 1983, another step was taken to deal with the crisis. The emphasis of Michigan's transportation program was changed to concentrate on preservation of the existing system and support of economic development. In that year, for the first time in 10 years, the Michigan Department of Transportation improved more miles of highways than deteriorated into poor condition. The Department of Transportation placed 737 miles of highway under contract for improvement compared to 144 the previous year. A substantial boost to the condition of our highways was given through a \$135 million bond issue. \$75 million of the issue was expended on county and city roads and streets.

The increase in expenditures and the shift in focus reversed the trend from decline to improvement. This new trend continues in 1984. The state, counties and cities are taking bids on highway, road and street construction and improvement projects totaling about \$370 million, slightly lower than the \$384 million let in 1983, but substantially higher than the \$146 million in 1982. Added to this will be over \$64 million for a public transportation capital investment program and a \$24 million investment in airport improvements. This thrust will continue in 1984 - 1985. For the first time, MDOT has developed an integrated programming document for Michigan's transportation system. In May of 1983, a task force was selected within the Department of Transportation to develop a multi-modal program which would relate to identified transportation needs and remain consistent with State Transportation Commission policy as set forth in the State Transportation Plan.

The Commission's primary goal is the retention of essential transportation services for all modes of transportation. Achieving this goal will protect the public and private transportation investment, while ensuring adequate service to industry, commerce, and the general public. Another vital goal is to support existing and potential economic development and to ensure that the state's transportation program is used to the fullest extent possible, to hasten the rebuilding of Michigan's economy.

The program development process uses the identified transportation needs and condition information to allocate resources into program categories. The allocations reflect the goals for the State. Each category is a functional area of capital expenditure. This structure provides an overview of how department resources have been allocated against the transportation needs of Michigan.

This program book is divided into three major sections: (1) the Aeronautics Program, (2) the Comprehensive Transportation Fund Program, and (3) the Highway Program. A discussion of revenues, distribution of funds, programming categories and priorities, system inventory and project lists is provided in each section.

As required by Act 51 of 1951 (as amended), the transportation program document is submitted to the State Transportation Commission April 1 of each year for their approval and subsequently forwarded to the Legislature by May 1st.

## STATE TRANSPORTATION FUNDS: SOURCES AND DISTRIBUTION

The Michigan Transportation Fund (MTF) is designated by Act 51, Public Acts of 1951, as the main receptacle for transportation funds in Michigan. Within the MTF, the two funds administered by the Department of Transportation (DOT) to finance state transportation modes in Michigan are the State Trunkline Fund (STF) and the Comprehensive Transportation Fund (CTF). The STF finances both the state trunkline highway system and state non-motorized facilities, such as bike-paths and horse trails. The CTF finances all other travel modes except air. The Aeronautics Fund is used for the state's system of air carrier and general aviation airports. Each fund will be discussed separately.

#### I. Michigan Transportation Fund

- A. Net taxes after refunds for vehicles not used on roads, streets, and bridges go into the Michigan Transportation Fund (MTF). The MTF has five off-the-top deductions, in the following priority:
  - "Administrative" costs of collecting the relevant taxes and certain other inter-departmental fund transfers are paid first.
  - 1.023 percent of the net gasoline tax revenue goes to the State Waterways Fund, administered by the Department of Natural Resources. The rationale for this is that a proportion of the gasoline taxed for highway use actually ends up by powering pleasure boats.
  - 3. \$3.5 million is allocated to the Mackinac Bridge Authority.
  - 4. 10 percent of the balance is allocated to the Comprehensive Transportation Fund (see CTF following).
  - 5. \$5 million is allocated to the Critical Bridge Fund, which provides "financial assistance to highway authorities for the improvement or reconstruction of existing bridges or for the construction of bridges to replace existing bridges in whole or in part." (Act 51 as amended, para. 247.661, sec. 11b).
- B. Allocation of the balance of the MTF:
  - The balance is split between the STF (39.1 percent), County Road Commissions (39.1 percent), and Cities and Villages (21.8 percent).

2. By October 1, 1984, a task force created under section 10(4) of Act 51 will recommend the distribution formula to be enacted into law for monies distributed after 9/30/85.

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#### II. State Trunkline Fund

The STF has two main sources of revenue: motor fuel taxes and vehicle registration fees.

#### A. Motor fuel taxes (total yield: \$546.6 million)

The gasoline gallonage tax is 15 cents in calender year 1984 and 1985. Gasohol is exempt from a portion of the gasoline tax. The amount of the exemption depends on whether or not the ethanol used in blending is produced in Michigan or any other state providing an equivalent tax reduction, as shown here:

•	Reduction in Gasoline Tax For Tax on Gasohol	
· · · · · · · · · · · · · · · · · · ·	<u> </u>	Non-Reciprocal
<u>Calendar Year</u>	Reciprocal State	States
1984	4¢	1¢
1985 1986	2¢ 1¢	0¢ 0¢

The tax on diesel fuel is the same as for gasoline, except that a commercial motor vehicle of three axles or more may receive a discount of six cents per gallon. 

#### B. Vehicle registration fees (total yield: \$288.8 million)

The tax on a new passenger vehicle purchased after October 1, 1983 is 0.5 percent of base price. The tax will drop by 10% for the succeeding two years, then remain constant for the life of the vehicle. The average tax on a vehicle under this system is \$43.

Passenger vehicles presently subject to the weight-based tax in effect prior to January 1, 1983, will remain on a weight-based tax. The average passenger-vehicle weight tax is \$28. On October 1, 1984, the tax rate will be indexed by the ratio of Michigan personal income for calendar year 1983 to Michigan personal income for calendar year 1982.

Commercial vehicles (trucks) remain on a weight-based tax averaging \$185 per truck. No indexing occurs. However, common carriers -- commercial vehicles used for the transportation of passengers for hire -- pay the same registration fee as other commercial vehicles until October 1, 1984, after which the registration fee is indexed to Michigan personal income as is the passenger vehicle registration fee.

#### III. Comprehensive Transportation Fund (CTF)

CTF revenues are derived principally from a share of the MTF, as described above, and a portion of the sales tax on motor vehicle-related items.

- 4 -

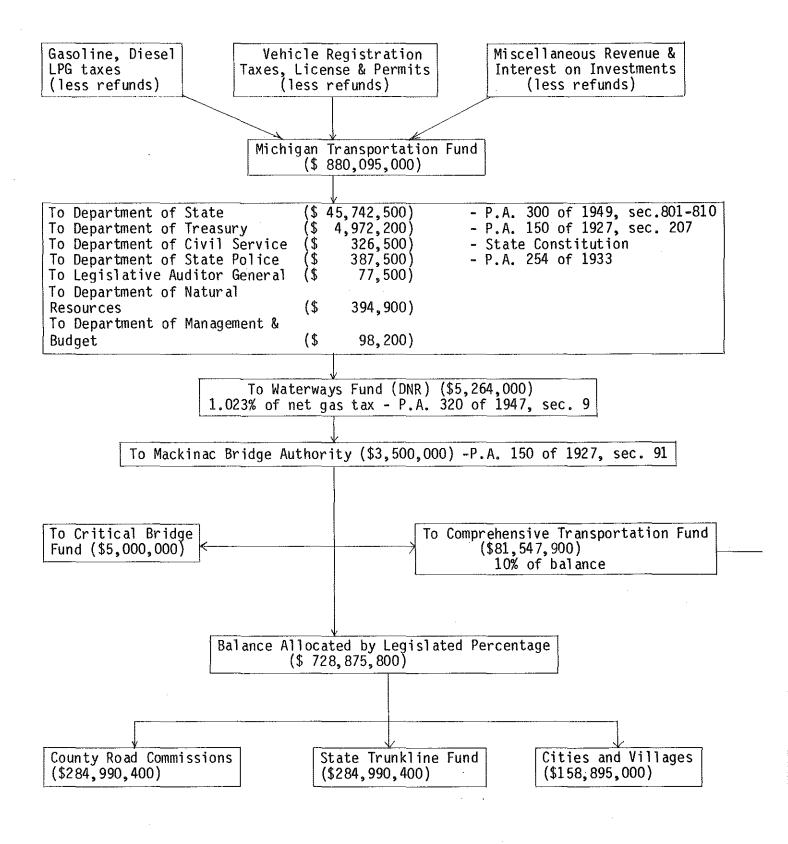
After refunds and administrative costs are deducted, 60 percent of the net motor vehicle-related sales tax is distributed to the School Aid Fund and 15 percent is distributed as revenue sharing to cities, villages and townships. The remaining 25 percent is divided between the CTF and the State's General Fund, with the provision that the CTF is to receive not less than 27.9 percent of the 25 percent. For FY 1984-85, the Governor's budget recommendation includes this statutory minimum of 27.9 percent for the CTF with the remainder included in the General Fund.

#### **IV.** Aeronautics Fund

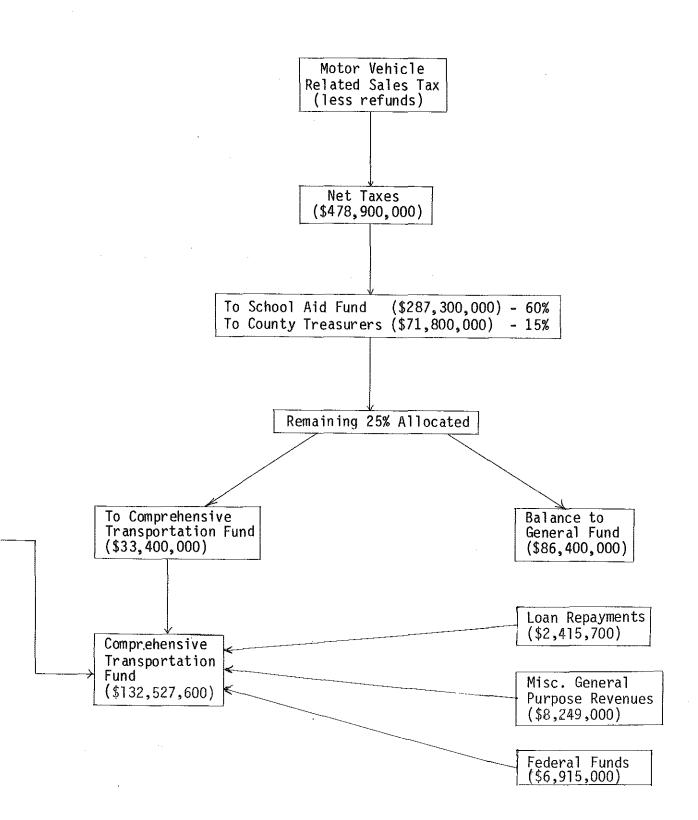
Aeronautics Fund revenues come principally from taxes on jet fuel and aviation gasoline. The fuel is taxed at 3 cents per gallon for fuel used in general aviation aircraft and 1.5 cents per gallon for fuel used in commercial aircraft, regardless of fuel type. After refunds and administrative costs, the net goes to the Aeronautics Fund.

The following diagrams illustrate the distribution of the three funds:

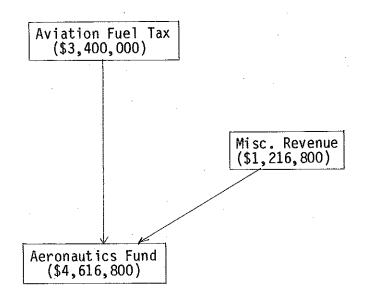
#### FISCAL YEAR 1984 - 85



#### FISCAL YEAR 1984 - 85



FISCAL YEAR 1984-85



8

## **AERONAUTICS PROGRAM**

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## A. Introduction

The charge of the Michigan Aeronautics Commission is to promote safety, encourage aeronautics and develop a statewide system of airports. Act 327, P.A. 1945 established a separate Aeronautics Funds for this purpose. Revenue for the fund is derived as follows:

	Percent	Amount (Millions)
Aviation fuel tax $(3 \notin gallon)$	11.2	3.4
Miscellaneous (interest, sale of publications, licensing, etc.)	4.0	1.2
Fund Carry-over	2.0	0.6
Subtotal - State Funds	-	5.2
Federal grants & local contributions	82.8	25.0
	100.0%	30.2

The distribution of funds for F.Y. 1984-85 is included in Table A-1.

The funds are used for planning, airport construction, general development and administration, including safety and licensing activities. Airport construction and development projects generally are funded 90%-5%-5% by federal, state and local agencies respectively. Airports must be on the national airport system, which is described later, to be eligible for federal funding. Improvements at airports not on the national airport system are financed equally by state and local agencies. Not more than \$250,000 of state funds may be allocated to a single airport in any two consecutive years. Once an improvement project receives legislative approval, the preliminary engineering is accomplished and the federal grant applications completed. The federal funding priorities and the size and scope of the project.

## B. System Inventory

Michigan's airport system includes 291 airports<u>1</u>/ and flying fields open to the public. These airports and flying fields are classified into categories according to their physical characteristics, types of aircraft served, and function within the airport system. Airports are arrayed under the two traditional categories of air carrier airports and general aviation airports.

1/ The inventory information used in this section was taken from the July 1, 1983, listing of airport facilities open to the public prepared by the Michigan Aeronautics Commission, Michigan Department of Transportation. See Exhibit A-1.

## Table A-1

## Aeronautics Fund

## FY 84-85 Distribution of Funds

		State	Federal	Local	Total
1.	Operations and Administration				
	a) Bureau of Aeronautics b) Bureau of Transportation Planning c) Grants to other funds	\$2,761,200 200,900 398,200			\$ 2,761,200 200,900 398,200
	Subtotal	\$3,360,300			\$ 3,360,300
2.	Airport Projects				
	a) Federal/State/Local b) State/Local Airport Construction c) Airport Plans	\$ 830,000 250,000 20,000	\$19,328,000	\$4,195,800 350,000 20,000	24,353,000 600,000 40,000
	Subtotal	\$1,100,000	\$19,328,000	\$4,565,000	\$24,993,000
3.	Air Transport Program	\$ 769,700			\$ 769,700
	Total	\$5,230,000	\$19,328,000	\$4,565,800	\$29,123,300

10C/B24

Air carrier airports, which are also known as commercial service airports, are public owned facilities accommodating scheduled air transportation service. There are 24 commercial service airports in Michigan. Five (5) sites service large commercial aircraft seating 100 or more passengers; 14 sites service mid-sized commercial aircraft seating 50-100 passengers; 3 sites service small commercial aircraft seating under 50 passengers; and 2 sites service smaller aircraft seating 10 passengers or less. Seventeen (17) of these sites have runways 6,500 feet or longer and approximately 150 feet wide capable of accommodating air carrier jet aircraft.

The remaining 267 airports are classified under the general aviation category. General aviation airports accommodate all civilian activity which is not part of scheduled air service. General aviation airports are classified into the following three sub-categories:

- Transport: These are public owned sites providing service to non-scheduled passenger and cargo aircraft whose landing approach speeds require longer, wider runways than available at utility airports. Transport airports serve small business jets and medium to large cargo aircraft. Runways range from 4,700 feet long and 100 feet wide at Dowagiac to 7,500 feet long and 160 feet wide at Willow Run. There are sixteen (16) Michigan airports classified as transport airports.
- <u>Utility</u>: Utility airports are public owned airports serving general aviation for the remainder of the airplane fleet. Aircraft range from home-built to cabin class turbo-prop twin corporate aircraft. Runways range from 1,800 feet turf strips to 4,100 feet hard surfaced runways. There are 87 Michigan airports classified as utility airports.
- 3. <u>Privately-Owned/Public Use</u>: These airports make significant contributions to the state's airport system without the benefit of public funding. Several of these airports serve large numbers of based aircraft in or near the state's major metropolitan areas. These facilities accommodate the same types of aircraft as utility airports. Financial difficulties and land use issues threaten to remove many of these facilities from the airport system thus creating capacity problems on adjacent sites where expansion capabilities may be limited. There are 164 Michigan airports classified as privately owned/public use airports.

The Michigan State Airport System Plan (MSASP) was developed to provide a means for the orderly and timely development of a system of airports adequate to meet the air transportation needs of Michigan. An airport must be included in this plan to qualify for State funding and federal participation in the funding of development. There are 136 existing airports included on the Michigan State Airport System Plan. To be eligible for federal funding, airports must be included on the National Plan of Integrated Airport Systems (NPIAS). To be placed on the NPIAS, an airport must serve a minimum number of aircraft, must not duplicate existing service from an airport in the same service area and must be included on the Michigan State Airport System Plan. There are 94 existing and 12 proposed Michigan Airports on the National Plan of Integrated Airport Systems.

Table A-2 lists the 291 airport locations open to the public in Michigan. The airports are listed alphabetically by category. To the right of the airport location, an N for National Plan or M for Michigan Plan has been indicated. It should be noted that eighteen (18) privately-owned/public use airports are included in national or state plans. These locations are included in the plans because geographical location and access to population centers would be desirable and beneficial to the system. None are receiving public funds at this time.

## C. Airport Condition and Deficiency Determination Process

Through the needs study process, facility design standards and cost factors relating to improvements were established for airports in each of the three airport categories: air carrier, transport and utility. These standards and cost factors were then applied to all 119 publicly-owned airports on the MSASP to determine the monetary needs to bring all 119 airports to the established standards. Additional costs associated with pavement reconstruction and sealing were calculated. This calculation assumed that all pavement will require reconstruction every 15 years and surface sealing every 6 or 7 years.

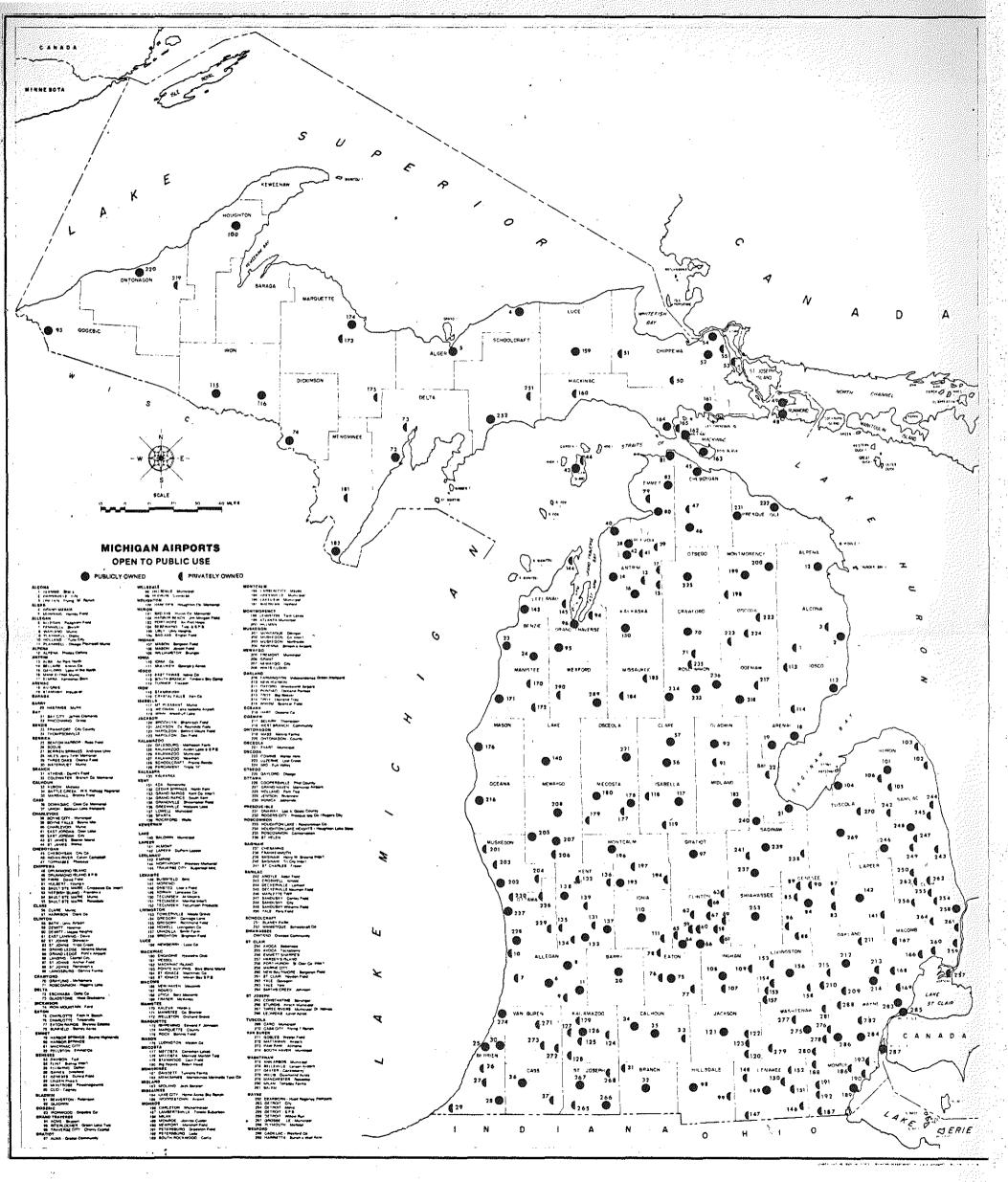
Table A-3 shows the total costs for each airport category.

## Table A-3

Item	Commercial	Transport	Utility	All		
	Airports	Airports	Airports	Airports		
Primary Runway Secondary Runway Lights Navigational Aids Precision Instru- mentation Land Resurfacing Reconstruction Total	\$ 7,181,950 \$ 8,486,300 \$ 69,480 \$ 123,200 \$ 1,600,000 \$ 355,400 \$ 7,253,901 \$38,514,060 \$63,584,291	\$ 4,165,000 \$12,589,200 \$ 145,600 \$ 103,200 \$ 4,000,000 \$ 2,436,300 \$ 3,959,073 \$17,996,400 \$45,394,773	\$ 34,893,400 \$ 54,915,500 \$ 3,384,000 \$ 1,249,800 \$ 25,723,000 \$ 5,216,076 \$ 30,134,170 \$155,515,946	<pre>\$ 46,240,350 \$ 75,991,000 \$ 3,599,080 \$ 1,476,200 \$ 5,600,000 \$ 28,514,700 \$ 16,429,050 \$ 86,644,630 \$264,495,010</pre>		

Airport Deficiencies and Related Costs

Notes: The cost for terminal construction is not included in these figures but is estimated at \$30.9 million.



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## **PRIVATE - PUBLIC USE AIRPORTS - 164**

Acme Ada Alba Albion Almont Argyle Athens Avoca<sup>(2)</sup> Bad Axe Bath **Bay Port** Beaverton Belleville **Benton Harbor** Berrien Springs Blaney Park Blissfield **Boyne Fails** Brighton Brooklyn Carleton Carson City Cass City Cedar Springs Charlotte Clio Comins Constantine Coopersville Croswell Daggett Davison Dearborn Deckerville (2) DeWitt (2) Dexter East Jordan East Lansing Eaton Rapids Elmira Emmett Engadine Farmington Fennville Fibre Flushing Fowlerville Frankenmuth Fraser Gaines Galesburg Gaylord Genesee Gladstone Glennie Gobles Grand Ledge Grand Rapids Grandville Grant Greenville Gregory (2) Harbor Beach Harbor Springs Harrietta Harsens Island Holland Holt Hudson Hulbert Ishpeming Jenison Kalamazoo (2) Kaleva Laingsburg

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Laka City	
Lake City	
Lambertville	N
Lapeer	N
Leonidas	
Lewiston	
Lincoln	
Linden	
Manchester	
Marine City	N
Mason	
Mass	
Mattawan	
Mecosta	
Milan	М
Milan	
Mio	М
Montague	
Montrose	
Moorestown	
Morenci	
Mulliken	
Muskegon	
-	
Napoleon (2)	
Neebish Island	
New Baltimore	
New Haven	
New Hudson	
Newport	
Nunica	
Onsted	
Parchment	
Paw Paw	
Petersburg (2)	
Pinconning	
Plainwell	
Plymouth	N
Ravenna	
Rock	M
Rockford	
Romeo	N
Roscommon	
Salem	N
Sandusky (2)	
Sault Ste. Marie	
Schoolcraft	
Selkirk	
Sheridan -	
Smiths Creek	
South Branch	М
South Rockwood	
St. Charles	
St. Clair	
St. Ignace	
St. James	
St. Johns (4)	
Stanwood	
Sunfield	
Tecumseh (2)	
Tecumseh	М
Three Oaks	М
Topinabee	
Traverse City	
Troy	
Turner	
Ubly	
Unadilla	
Union	
Utica	N
Weidman	
Wellston	
Williamston	
Willis	
Winn	
Wixom	М
Yale (3)	

## D. Priorities and Program Categories

State funds are allocated to airport development projects on the basis of the following priorities:

- Safety Lighting, approach clearing and runway surface treatments.
- Primary airside Primary runways, taxiways, aprons and associated land.
- 3. Secondary airside Secondary runways, taxiways, aprons and related development.
- 4. Primary landside Terminal buildings, access roads, tie-downs, and T-hanger taxiways.
- 5. Secondary landside Fencing, storage buildings, and service roads.

State funding is sufficient to allow the State to participate in projects into priority area three. Remaining projects are funded on a 90 percent federal and 10 percent local basis.

Each project is then assigned to one of eight program categories for the purpose of identifying projects by improvement types. The eight program categories are listed and described below:

1. Special Programs/Safety

This category includes development to implement safety and security requirements of rules and regulations and highest priority safety work. In addition, this category includes economic development projects of special significance.

2. Reconstruction

This includes development required to preserve, repair, or restore the functional integrity of the landing area. Ineligible routine maintenance is excluded. Typical projects include rehabilitation of pavements, including seal coating, and replacement or rehabilitation of lighting systems. Pavement strengthening is generally excluded as most development of this type falls into the "Upgrade" category.

3. Standards

This is development oriented towards bringing existing airports up to recommended standards based on the current designed use of the airport. Capacity development is excluded, as is development for the purpose of accommodating larger aircraft types not included within the current design category of the airport.

## 4. Upgrading Airport Role (Upgrade)

This category is oriented towards development which provides for accommodating larger aircraft types and/or longer nonstop routes. For example, where the existing length of a runway serving commercial carriers is based on the use of a specific critical aircraft, a runway extension to accommodate larger aircraft is considered as "Upgrade."

This category covers items intended to provide for future changes in the use of the airport as compared with "Standards" development which is oriented towards current deficiencies.

## 5. Capacity Development (Capacity)

This category is oriented towards development required to increase system capacity. It includes any development that will increase the capacity of an airport beyond its present designed use (standards).

Typical development includes new runways and apron and terminal expansion. In cases where expansion is needed based on current delay and congestion, the costs are considered as "Capacity" expansion rather than "Standards'" Development based solely on accommodating aircraft with larger seating capacity is included in the "Upgrade" category unless other related factors place the project in this category.

## 6. New Airports - Capacity

This category is intended for all new reliever airports and new commercial service airports which are constructed to increase metropolitan system capacity.

## 7. New Airports - Community

This category is used for any new airport which will be the sole airport serving a community. It will normally be a general aviation airport meeting community needs for an adequate airport. A small number of commercial service (new or replacement) airports outside of the large metropolitan areas will also be included.

## 8. Equipment and Buildings

This category includes maintenance equipment and buildings including the airport terminal. Unless snow removal equipment is safety related, it is also included in this category.

## E. Resources by Program Categories

The funding for each of the eight program categories for FY 1984-85 is given below:

		Total	Federal	State	Local
1. 2. 3. 4. 5. 6. 7.	Safety/Special Projects Reconstruction Standards Upgrading Airport Role Capacity Development New Airports - Capacity New Airports - Community	\$ 640,000 3,470,461 12,894,679 2,411,400 8,191,575 -0- 4,731,042	\$576,000 2,988,415 11,460,588 2,170,300 6,111,967 0- 4,257,938	\$ 32,000 128,524 259,608 90,000 236,219 -0- 204,667	\$ 32,000 353,522 1,174,483 151,100 1,843,389 -0- 268,437
8.	Equipment & Buildings	985,000	886,500		98,500
	TOTALS:	\$33,324,157	\$28,451,708	\$ 951,018	\$3,921,431

## F. List of Projects

Projects are separated into three groups, The first group called the "A" list, contains the highest priority projects. The level of funding for projects in the "A" list represents the minimum expected to become available for fiscal year 1984-85. The second level, called the "B" list, contains additional projects that, when combined with those in the "A" list, represents the maximum level of funding expected to become available in fiscal year 1984-85. Having these projects ready allows us to take advantage of any discretionary funds that may become available.

The third group is called the "C" list. These projects are expected to be funded from monies that become available after fiscal year 1984-85.

The location of the airports which have projects on the "A" and "B" lists are shown on the maps immediately preceeding the list of projects.

Aeronautics projects are currently funded in the Capital Outlay Appropriations Bill. The projects are listed by site with dollars for each location in the Federal/State/Local Program. With an integrated programming procedure the Aeronautics projects should be contained in the Transportation Program Book with the other modes. The Federal/ State/Local program could then be appropriated as a single line item putting Aeronautics Projects in parallel with the appropriations of other Departmental Projects. THE "A" LIST OF PROJECTS



3/1/84

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#### BUREAU OF AERONAUTICS

1985 CAPITAL OUTLAY PROGRAM

## PRIORITY A PROJECTS

## CATEGORY 1 SPECIAL PROGRAMS/SAFETY

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
BATTLE CREEK W K KELLOGG REGIONAL	3	RUNWAY SURFACE TREATMENT	\$100,000	\$90,000	\$5.000	\$5,000
BENTON HARBOR RDSS FIELD	1	MASTER PLAN	\$25,000	\$22.500	\$1,250	\$1,250
HANCOCK HOUGHTON COUNTY MEMORIAL	1	SAFETY OVERRUN	\$335,000	\$301,500	\$16,750	\$16,750
LANSING CAPITAL CITY	1	MASTER PLAN	\$100,000	\$90.000	\$5,000	\$5,000
MARQUETTE MARQUETTE COUNTY	1	MASTER PLAN	\$20,000	\$18,000	\$1,000	\$1.000
		CATEGORY TOTAL	\$580,000	\$522,000	\$29,000	\$29,000
CATEGORY 2 RECONSTRUCTION						
BATTLE CREEK W k kellogg regional	3	PAVE EXISTING RUNWAY	\$1,200,000	\$1,080,000	\$60,000	\$60,000
DETROIT DETROIT METROPOLITAN WAYNE CO	3 U 3	APRON DRAINAGE Taxiway rehabilitation	\$500,000 \$400,000	\$375.000 \$300.000		\$125.000 \$100.000
DETRUIT WILLOW RUN	Э	APRON REHABILITATION	\$450,000	\$405.000	\$22,500	\$22,500
HANCOCK HOUGHTON COUNTY MEMORIAL	2	STRENGTHENING OVERLAY	\$305,000	\$274,500	\$15,250	\$15,250
KALAMAZOO Kalamazoo muni	3	PAVE EXISTING RUNWAY	\$299,126	\$269,213	\$14,957	\$14,956
DWOSSO OWOSSO CITY	3	PAVE EXISTING RUNWAY	\$110,000	\$99,000	\$5,500	\$5,500

CATEGORY TOTAL \$3,264,126 \$2,802,713 \$118,207

\$343,206

## BUREAU OF AERONAUTICS

## 1985 CAPITAL OUTLAY PROGRAM

## PRIORITY A PROJECTS

#### CATEGORY 3 STANDARDS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
BAY CITY JAMES CLEMENTS MUNI	2	LAND FOR EXISTING AIRPORT	\$50,000	\$45,000		\$5,000
CADILLAC WEXFORD COUNTY	3 2	LENGTHEN EXISTING RUNWAY LAND F <b>OR EXISTING AIRPOR</b> T	\$120,000 \$300,000	\$108,000 \$270,000	\$6,000	\$6,000 \$30,000
CARO CARO MUNI	3 2 3 3 1	MEDIUM INTENSITY RWY LTG LANU FOR EXISTING AIRPORT NEW TAXI LENGTHEN EXISTING RUNWAY TAXIWAY SIGNS	\$46,840 \$168,000 \$115,120 \$129,780 \$1,975	\$42,156 \$151,200 \$103,608 \$116,802 \$1,777	\$2.342 \$5.756 \$6.489 \$99	\$2,342 \$16,800 \$5,756 \$6,489 \$99
	1	AIRPORT BEACON TAXIWAY LIGHTING	\$2,000 \$18,745	\$1,800 \$16,870	\$100 \$937	\$ 100 \$938
DETROIT DETROIT CITY	3	LENGTHEN EXISTING RUNWAY	\$417,000	\$375,300	\$20,850	\$20,850
DETROIT DETROIT METROPOLITAN WAYNE CO	2 )U	LAND FOR EXISTING AIRPORT	\$1,000,000	\$750,000		\$250,000
EVART EVART MUNI	2 2 2 2 2	REHABILITATE AIRPORT LTG LAND FOR EXISTING AIRPORT NEW TAXI CONSTR NEW APRON PRIMARY RWY CONSTRUCTION	\$143,000 \$203,000 \$88,000 \$61,000 \$628,000	\$128,700 \$182,700 \$79,200 \$54,900 \$565,200	\$7,150 \$4,400 \$3,050 \$31,400	\$7,150 \$20,300 \$4,400 \$3,050 \$31,400
FLINT BISHOP	2	LAND FOR EXISTING AIRPORT	\$1,500,100	\$1,350,090		\$150,010
GAYLORD OTSEGO COUNTY	5 2	PERIMETER FENCING AUT WEATHER REPORT SYSTEM	\$130,000 \$114,000	\$117.000 \$108.000		\$13,000 \$6,000
IRONWOOD Gogebic County	5	SRE SANDER/SPREADER	\$270.000	\$243,000		\$27,000
JACKSON JACKSON COUNTY-REYNOLDS FIELD	5 2	PERIMETER FENCING Taxiway lighting	\$34,349 \$175,000	\$30,915 \$157,500	\$8,750	\$3,434 \$8,750
KALAMAZOO Kalamazoo Muni	5 5	SRE FRONT END LOADER SRE SNOWBLOWER	\$60,000 \$185,000	\$54,000 \$166,500		\$6,000 \$18,500
LAKEVIEW LAKEVIEW	. 1 1	RELOCATE LOCAL ROAD Lengthen existing runway	\$42,900 \$129,800	\$38,610 \$116,820	\$2,145 \$6,490	\$2,145 \$6,490

#### BUREAU OF AERONAUTICS

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#### 1985 CAPITAL OUTLAY PROGRAM

## PRIORITY A PROJECTS

CATEGORY 3 STANDARDS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
LANSING CAPITAL CITY	5 5 5 2	CFR BUILDING SRE FRONT END LOADER SRE BROOM LAND FOR EXISTING AIRPORT	\$326,670 \$140,000 \$110,000 \$700,000	\$294,000 \$126,000 \$99,000 \$630,000		\$32,670 \$14,000 \$11,000 \$70,000
OWOSSO OWOSSO CITY	1 1 1	RADID CONTROL VASI REIL	\$5,000 \$15,000 \$15,000	\$4,500 \$13,500 \$13,500	\$250 \$750 \$750	\$250 \$750 \$750
PONTIAC DAKLAND-PONTIAC	1	SEAL APRON	\$307,800	\$277,000		\$30,800
SAGINAW TRI CITY	5 2	CFR BUILDING LAND FOR EXISTING AIRPORT	\$360.000 \$302,400	\$324,000 \$272,160		\$36,000 \$30,240
TRAVÉRSE CITY Cherry capital	2	STRENGTHENING OVERLAY	\$932,500	\$839,250	\$46,625	\$46,625
WEST BRANCH WEST BRANCH COMMUNITY	1	SAFETY OVERRUN	\$61,000	\$54,900	\$3,050	\$3,050
		CATEGORY TOTAL	\$9,408,979	\$8,323,458	\$157,383	\$928,138
					-	
CATEGORY 4 UPGRADING AIRPORT	ROLE (UPGRADE)	1				
BAY CITY JAMES CLEMENTS MUNI	2	PRIMARY RWY CONSTRUCTION	\$700,000	\$630,000	\$35,000	\$35,000
PONTIAC OAKLAND-PONTIAC	1	RUNWAY REHABILITATION	\$444,400	\$400,000		\$44,400
WEST BRANCH WEST BRANCH COMMUNITY	2	LENGTHEN EXISTING RUNWAY	\$1,100,000	\$990,000	\$55,000	\$55,000
		CATEGORY TOTAL	\$2,244,400	\$2,020,000	\$90,000	\$134,400

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#### 1985 CAPITAL OUTLAY PROGRAM

#### PRIORITY A PROJECTS

#### CATEGORY 5 CAPACITY DEVELOPMENT (CAPACITY)

	PRIORITY	PROJECT ITEM	TOTAL EST.	FEDERAL	STATE	LOCAL
/AIRPORT		DESCRIPTION	COST	FUNDS	FUNDS	FUNDS
BAD AXE	3	TAXIWAY PAVING	\$50,000	\$45,000	\$2,500	\$2,500
HURON COUNTY MEMORIAL	3	PARALLEL TAXIWAY PAVING	\$88,000	\$79,200	\$4,400	\$4,400
	3	APRON EXPANSION	\$42,600	\$38,340	\$2,130	\$2,130
DETROIT	3	NEW TAXI	\$1,000,000	\$750,000		\$250,000
DETROIT METROPOLITAN WAYNE COU	4	RELOCATE LOCAL ROAD	\$800,000	\$600,000		\$200,000
•	5	SIDEWALK	\$100,000	\$75,000		\$25,000
	4	RECONSTRUCT TERMINAL BLDG	\$500,000	\$250,000		\$250,000
DETROIT	з	NEW TAXI	\$85,000	\$76,500		\$8,500
WILLOW RUN	4	ACCESS ROADS	\$250,000	\$225,000		\$25,000
EVART	2	AUTO PARKING	\$24,000	\$21,600	\$1,200	\$1,200
EVART MUNI						
GRAND RAPIDS	4	PASSENGER LOADING BRIDGE	\$1,000,000	\$500,000		\$500,000
KENT COUNTY INTL						
KALAMAZOO	4	TAXISTREET CONSTR	\$50,000	\$45,000		\$5,000
KALAMAZOO MUNI	4	PASSENGER LOADING BRIDGE	\$215,000	\$107,500		\$107,500
	5	EQUIPMENT STORAGE BUILD	\$183,000	\$165,000		\$18,000
	3	NEW TAXI	\$240,000	\$216,000	\$12,000	\$12,000
	2	VAULT WORK	\$55,500	\$50,000		\$5,500
	3	DRAINAGE	\$680,000	\$612,000		\$68,000
LAKEVIEW LAKEVIEW	1	APRON EXPANSION	\$20,800	\$18,720	\$1,040	\$1,040
LANCVIEW						
MARQUETTE	3	APRON EXPANSION	\$232,000	\$144,000	\$8,000	\$80,000
MARQUETTE COUNTY	3	NEW TAXI	\$11,600	\$10,440	\$580	\$580
	З	APRON EXPANSION	\$9,000	\$8,100	\$450	\$450
MUSKEGON MUSKEGON COUNTY	3	APRON EXPANSION	\$195,375	\$175,837	\$9,769	\$9,769
OWOSSO	1	ELECTRONIC LANDING AIDS	\$350,000	\$315,000	\$17,500	\$17,500
OWOSSO CITY	3	APRON EXPANSION	\$150,000	\$135,000	\$7,500	\$7,500
	4	AUTO PARKING	\$31,700	\$28,530	2.1.00	\$3,170
SAGINAW TRI CITY	5	WATER AND SEWER	\$176,000	\$158,400		\$17,600
WEST BRANCH	4	CONSTR NEW APRON	\$59,000	\$53,100		\$5,900
WEST BRANCH COMMUNITY						

CATEGORY TOTAL \$6,598,575 \$4,903,267 \$67,069 \$1,628,239

#### BUREAU OF AERONAUTICS

#### 1985 CAPITAL OUTLAY PROGRAM

## PRIORITY A PROJECTS

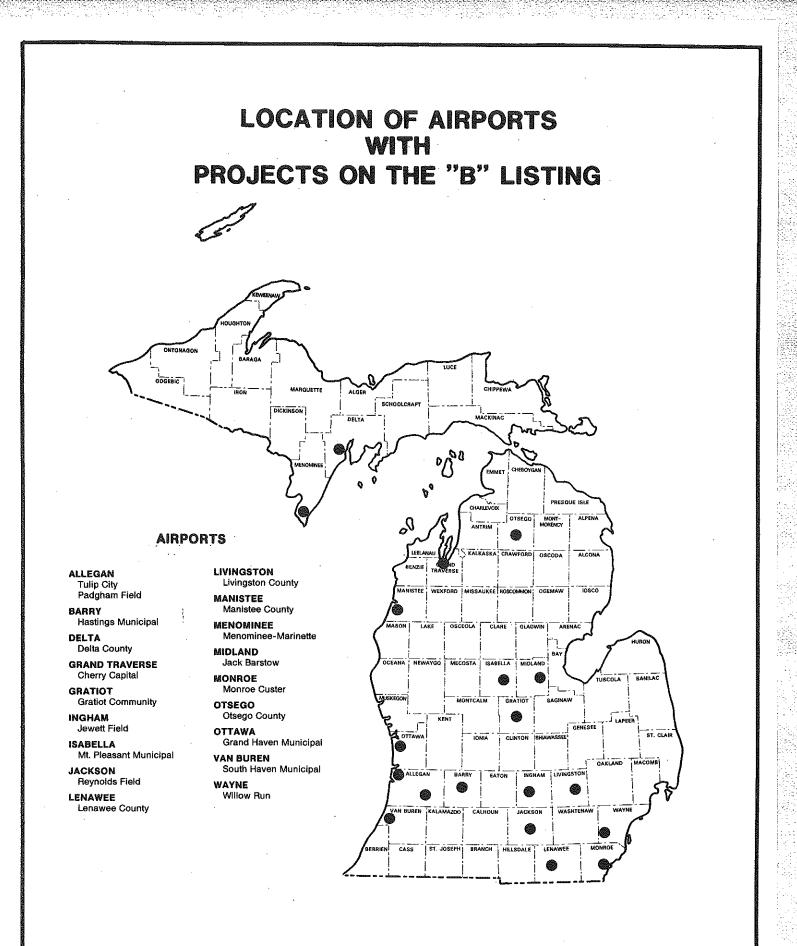
#### CATEGORY 7 NEW AIRPORTS-COMMUNITY

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
CASEVILLE	4	ACCESS ROADS	\$88,100	\$79,290		\$8,810
CASEVILLE TOWNSHIP AIRPORT	4	CONSTR NEW APRON	599,600	\$89,640		\$9,960
	2	PRIMARY RWY CONSTRUCTION	\$596,400	\$536,760	\$29,820	\$29,820
	3	NEW TAXI	\$30,942	\$27,848	\$1,547	\$1,547
	2	DRAINAGE	\$108,000	\$97,200	\$5,400	\$5,400
	2	LAND FOR NEW AIRPORT	\$450,000	\$405,000		\$45,000
		CATEGORY TOTAL	\$1,373,042	\$1,235,738	\$36,767	\$100,537

CATEGORY 8 EQUIPMENT AND BUILDINGS						
MARQUETTE MARQUETTE COUNTY	5	GENERATOR		\$250.000	\$225,000	\$25,000
PONTIAC	5	CFR BUILDING		\$500,000	\$450,000	\$50,000
			CATEGORY TOTAL	\$750,000	\$675,000	\$75,000

GRAND TOTAL \$24,219,122 \$20,482,176 \$498,426 \$3,238,520

The "B" list of projects



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#### 1985 CAPITAL OUTLAY PROGRAM

## PRIORITY B PROJECTS

#### CATEGORY 1 SPECIAL PROGRAMS/SAFETY

LOCATION /Airport	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
MENOMINEE MENOMINEE-MARINETTE TWIN COUNT	1	MASTER PLAN	\$60,000	\$54,000	\$3,000	\$3,000
		CATEGORY TOTAL	\$60,000	\$54,000	\$3,000	\$3,000
CATEGORY 2 RECONSTRUCTION			·	۰ .		
ADRIAN The lenawee county	3	MEDIUM INTENSITY RWY LTG	\$54,600	\$49,140	\$2,730	\$2,730
ALMA GRATIOT COMMUNITY	3 3	SEAL AP <b>RON</b> SEAL COAT	\$18,000 \$55,000	\$16,200 \$49,500	\$900 \$2,750	\$900 \$2,750
GRAND HAVEN Grand Haven meml Airpark	3	MEDIUM INTENSITY RWY LTG	\$66,000	\$59,400	\$3,300	\$3,300
MANISTEE MANISTEE COBLACKER	2	STRENGTHENING OVERLAY	\$12,735	\$11,462	\$637	\$636
		CATEGORY TOTAL	\$206,335	\$185,702	\$10,317	\$10,316
CATEGORY 3 STANDARDS						
ADRIAN The Lenawee County	1	REIL	\$33,100	\$29,790	\$1,655	\$1,655
ALMA GRATIOT COMMUNITY	1	ELECTRONIC LANDING AIDS	\$10,000	\$9,000	\$500	\$500
ESCANABA DELTA COUNTY	5	SRE TRUCK PLOW/BLADE	\$120,000	\$108,000		\$12,000
GRAND HAVEN GRAND HAVEN MEML AIRPARK	1 1 2	SEGMENTED CIRCLE WINDCONE TAXIWAY LIGHTING	\$4,000 \$8,000 \$85,000	\$3,600 \$7,200 \$76,500	\$200 \$400 \$4,250	\$200 \$400 \$4,250

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#### BUREAU OF AERONAUTICS

1985 CAPITAL OUTLAY PROGRAM

PRIORITY B PROJECTS

## CATEGORY 3 STANDARDS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LDCAL FUNDS
	1 1	REIL VASI	\$15.000 \$15,000	\$13,500 \$13,500	\$750 \$750	\$750 \$750
HASTINGS HASTINGS MUNI	Ż	LAND FOR EXISTING AIRPORT	\$80,000	\$72,000		\$8,000
HOWELL LIVINGSTON COUNTY	2	LENGTHEN EXISTING RUNWAY	\$500,000	\$450,000	\$25,000	\$25,000
JACKSON JACKSON COUNTY-REYNOLDS FIELD	5	SRE TRUCK PLOW/BLADE	\$100,000	\$90,000		\$10,000
MANISTEE MANISTEE COBLACKER	2	LAND FOR EXISTING AIRPORT	\$580,000	\$522,000		\$58,000
MENOMINEE MENOMINEE-MARINETTE TWIN COUNT	1	MICROWAVE LANDING SYSTEM	\$418,400	\$376,560	\$10,460	\$31,380
MIDLAND Jack Barstow	2	LAND FOR EXISTING AIRPORT	\$52,000	\$46,800		\$5,200
MONROE Monroe custer	2	PAVE EXISTING RUNWAY	\$180,000	\$162,000	\$9,000	\$9,000
MT PLEASANT MT PLEASANT MUNICIPAL	2	LENGTHEN EXISTING RUNWAY	\$355,200	\$319,680	\$17,760	\$17,760
SOUTH HAVEN SOUTH HAVEN MUNI	3 1 2	WIDEN EXISTING RUNWAY ELECTRONIC LANDING AIDS LAND FOR EXISTING AIRPORT	\$590,000 \$40,000 \$300,000	\$531.000 \$36.000 \$270.000	\$29,500 \$2,000	\$29,500 \$2,000 \$30,000
		CATEGORY TOTAL	\$3,485,700	\$3,137,130	\$102,225	\$246,345

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## 1985 CAPITAL OUTLAY PROGRAM

## PRIORITY B PROJECTS

## CATEGORY 4 UPGRADING AIRPORT ROLE (UPGRADE)

LOCATION /AIRPORT	PRIORITY P	ROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
MT PLEASANT MT PLEASANT MUNICIPAL	2	LAND FOR EXISTING AIRPORT	\$167,000	\$150,300		\$16,700
		CATEGORY TOTAL	\$167,000	\$150,300		\$16,700
CATEGORY 5 CAPACITY DEVELOPM	ENT (CAPACITY)					
ALLEGAN PADGHAM FIELD	3	NEW TAXI	\$275,000	\$247,500	\$13,750	\$13,750
DETROIT WILLOW RUN	5	WATER AND SEWER	\$460,000	\$414,000		\$46,000
GRAND HAVEN GRAND HAVEN MEML AIRPARK	2	EDGE LIGHTING	\$8,000	\$7.200	\$400	\$400
MASON MASON JEWETT FIELD	3	CROSSWIND RWY CONSTR	\$250,000		\$125,000	\$125,000
SOUTH HAVEN SOUTH HAVEN MUNI	3	LENGTHEN EXISTING RUNWAY	\$300,000	\$270,000	\$15,000	\$15,000
TRAVERSE CITY CHERRY CAPITAL	3 3	NEW TAXI NEW TAXI	\$150,000 \$150,000	\$135,000 \$135,000	\$7,500 \$7,500	\$7,500 \$7,500
		CATEGORY TOTAL	\$1,593,000	\$1,208,700	\$169,150	\$215,150

#### MDDT Q/047/04

#### BUREAU OF AERONAUTICS

#### 1985 CAPITAL OUTLAY PROGRAM

## PRIORITY B PROJECTS

#### CATEGORY 7 NEW AIRPORTS-COMMUNITY

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description		TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
HOLLAND TULIP CITY	2	LAND FOR NEW AI	RPORT	\$3,358,000	\$3,022.200	\$167,900	\$167,900
			CATEGORY TOTAL	\$3,358,000	\$3,022,200	\$167,900	\$167,900
CATEGORY 8 EQUIPMENT A	ND BUILDINGS						
GAYLORD OTSEGO COUNTY	5	SRE BROOM		\$100,000	\$90,000		\$10,000
MIDLAND	5	SRE SNOWBLOWER		\$135,000	\$121,500		\$13,500
			CATEGORY TOTAL	\$235,000	\$211,500		\$23,500
			GRAND TOTAL	\$9,105,035	\$7,969,532	\$452,592	\$682,911

THE "C" LIST OF PROJECTS

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## MDDT Q/047/04

## BUREAU OF AERONAUTICS

## CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

## CATEGORY 1 SPECIAL PROGRAMS/SAFETY

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
MENOMINEE MENOMINEE-MARINETTE TWIN COUN	3	RUNWAY SURFACE TREATMENT	\$53,000	\$47,700	\$2,650	\$2,650
		CATEGORY TOTAL	\$53,000	\$47,700	\$2,650	\$2,650
CATEGORY 2 RECONSTRUCTION						
BATTLE CREEK W K KELLOGG REGIONAL	3	DRAINAGE	\$9,000	\$8,100	\$450	\$450
BOYNE CITY Boyne City Muni	3	PAVE EXISTING RUNWAY	\$65,000	\$58,500	\$3,250	\$3,250
CHARLOTTE Fitch H Beach	3	PAVE EXISTING RUNWAY	\$97,000	\$87,300	\$4,850	\$4,850
CLARE Clare Municipal	3	PAVE EXISTING RUNWAY	\$81,000	\$72,900	\$4,050	\$4,050
DETROIT Willow Run	3	APRON REHABILITATION	\$900,000	\$810,000	\$45,000	\$45,000
GRAND RAPIDS	Э	APRON REHABILITATION	\$200,000	\$180,000	\$10.000	\$10,000
KENT COUNTY INTL	3	PAVE EXISTING RUNWAY	\$400,000	\$360,000	\$20,000	\$20,000
	3	PAVE EXISTING RUNWAY	\$600,000	\$540,000	\$30,000	\$30,000
HARRISON CLARE COUNTY	3	PAVE EXISTING RUNWAY	\$60,000		\$30,000	\$30,000
HASTINGS HASTINGS MUNI	3	PAVE EXISTING RUNWAY	\$77,000	\$69,300	\$3,850	\$3,850
IONIA Ionia county	3	TAXIWAY PAVING	\$133,000	\$119,700		\$13,300
IRONWOOD Gdgebic County	2	RUNWAY SURFACE TREATMENT	\$150,000	\$135,000	\$7,500	\$7,500
KALKASKA Kalkaska city	2	PAVE EXISTING RUNWAY	\$280,000		\$140,000	\$140,000

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## CAPITAL OUTLAY PROGRAM

PRIORITY C PROJECTS

CATEGORY 2 RECONSTRUCTION

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
LUDINGTON MASON COUNTY	3	PAVE EXISTING RUNWAY	\$250,000	\$225,000	\$12,500	\$12,500
NEWAYGO NEWAYGO	2	PAVE EXISTING RUNWAY	\$68,000	\$61,200	\$3,400	\$3,400
NEWBERRY LUCE COUNTY HALE	3	PAVE EXISTING RUNWAY	\$193,000	\$173,700	\$9,650	\$9,650
ONAWAY Onaway muni	3	PAVE EXISTING RUNWAY	\$67,000	\$60,300	\$3,350	\$3,350
ONTONAGON Ontonagon county	Э	MEDIUM INTENSITY RWY LTG	\$30,000	\$27,000	\$1,500	\$1,500
OWOSSO Dwosso city	Э	RECONSTRUCT APRON	\$50,000	\$45,000	\$2,500	\$2,500
PAW PAW Almena	2	PRIMARY RWY CONSTRUCTION	\$420,000	\$378,000	\$21,000	\$21,000
PELLSTON Emmet county	3	RUNWAY SURFACE TREATMENT	\$300,000	\$270,000	\$15,000	\$15,000
PONTIAC Oakland-Pontiac	3	DRAINAGE	\$12,500	\$11,250	\$625	\$625
PORT HURON St.clair county intl	Э	PAVE EXISTING RUNWAY	\$441,000	\$396,900	\$22,050	\$22,050
SAGINAW Harry W. Browne	3	PAVE EXISTING RUNWAY	\$340,000		\$170,000	\$170,000
SEBEWAING SEBEWAING	Э	PAVE EXISTING RUNWAY	\$47,000	\$42,300	\$2,350	\$2,350
WHITE CLOUD WHITE CLOUD	2	PAVE EXISTING RUNWAY	\$124,000	\$111,600	<b>\$6,2</b> 00	\$6,200
		CATEGORY TOTAL	\$5,394,500	\$4,243,050	\$569.075	\$582,375

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## CAPITAL OUTLA<sup>\</sup>Y PROGRAM

## PRIORITY C PROJECTS

#### CATEGORY 3 STANDARDS

LOCATION /Airport	PRIORITY P	ROJECT ITEM Description	TOTAL EST.	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
ADRIAN The lenawee county	1 2	VASI Taxiway lighting	\$33,100 \$40,600	\$29,790 \$36,540	\$1,655 \$2,030	\$1,655 \$2,030
BATTLE CREEK W K KELLOGG REGIONAL	1 2 2	VASI Edge lighting Clearing	\$15,000 \$6,500 \$4,000	\$13,500 \$5,850 \$3,600	\$750 \$325 \$200	\$750 \$325 \$200
BAY CITY JAMES CLEMENTS MUNI	3	MEDIUM INTENSITY RWY LTG	\$60,000	\$54,000	\$3,000	\$3,000
BELLAIRE ANTRIM COUNTY	3	RUNWAY SURFACE TREATMENT	\$50,000	\$45,000	\$2,500	\$2,500
BIG RAPIDS Roben-Hood	2	LAND FOR EXISTING AIRPORT	\$400,000	\$360,000		\$40,000
CASEVILLE CASEVILLE TOWNSHIP AIRPORT	1 3	ÉLECTRONIC LANDING AIDS Medium intensity RWY LTG	\$10,000 \$194,000	\$9,000 \$174,600	\$500 \$9,700	\$500 \$9,700
DETROIT DETROIT CITY	2	NON-PRECISION INSTR APPR	\$369,000	\$332,100	\$18,450	\$18,450
DETROIT WILLOW RUN	2	LAND FOR EXISTING AIRPORT	\$600,000	\$540,000		\$60,000
DOWAGIAC CASS COUNTY MEML	2	LAND FOR EXISTING AIRPORT	\$1,507,000	\$1,356,300		\$150,700
FLINT BISHOP	2	LAND FOR EXISTING AIRPORT	\$1,600,000	\$1,440,000		\$160,000
GAYLORD Otsego county	5	PERIMETER FENCING	\$130,000	\$117,000		\$13,000
GRAND HAVEN Grand Haven meml Airpark	2 2	TAXIWAY LIGHTING Land for existing airport	\$92,500 \$159,000	\$83,250 \$143,100	\$4,625	\$4,625 \$15,900
GRAND LEDGE Abrams Muni	2	LAND FOR EXISTING AIRPORT	\$210,000	\$189,000		\$21,000
HOUGHTON LAKE Roscommon county	1 2	REIL LAND FOR EXISTING AIRPORT	\$15,000 \$50,000	\$13,500 \$45,000	\$750	\$750 \$5,000

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## CAPITAL OUTLAY PROGRAM

PRIDRITY C PROJECTS

## CATEGORY 3 STANDARDS

KALAMAZOD KALAMAZOD MUNI2UTILITY RELOCATION\$50,000\$45,000\$2,500\$2KALAMAZOD MUNI2MEDIUM INTENSITY RWY LTG\$50,000\$25,000\$25,000\$25LANSING CAPITAL CITY2LAND FOR EXISTING AIRPORT\$700,000\$630,000\$700LUDINGTON MASON COUNTY2CLEARING\$23,500\$21,150\$1,175\$100MANISTEE MANISTEE COBLACKER1MICROWAVE LANDING SYSTEM\$500,000\$450,000\$25,000\$25MENOMINEE5TESTING EQUIPMENT\$1,000\$900\$900\$100\$100	CAL √DS
GOGEBIC COUNTY       2       TAXIWAY LIGHTING       \$15,500       \$13,950       \$775         2       TAXIWAY LIGHTING       \$15,200       \$13,950       \$775         2       TAXIWAY LIGHTING       \$15,200       \$13,950       \$775         3       MEDIUM INTENSITY RWY LTG       \$15,000       \$13,950       \$775         KALAMAZOD MUNI       2       UTILITY RELOCATION       \$50,000       \$45,000       \$2,500       \$2         KALKASKA KALKASKA CITY       2       MEDIUM INTENSITY RWY LTG       \$50,000       \$25,000       \$25         LANSING CAPITAL CITY       2       LAND FOR EXISTING AIRPORT       \$700,000       \$630,000       \$700         LUDINGTON MASON COUNTY       2       CLEARING       \$23,500       \$21,150       \$1,175       \$1         MANISTEE       1       MICROWAVE LANDING SYSTEM       \$500,000       \$450,000       \$25,000       \$25	\$775
2       TAXIWAY LIGHTING       \$15,500       \$13,950       \$775         2       TAXIWAY LIGHTING       \$15,500       \$13,950       \$775         2       TAXIWAY LIGHTING       \$15,500       \$13,950       \$775         3       MEDIUM INTENSITY RWY LTG       \$15,000       \$13,950       \$775         3       MEDIUM INTENSITY RWY LTG       \$152,000       \$13,6800       \$7,600       \$13         KALAMAZOD MUNI       2       UTILITY RELOCATION       \$50,000       \$45,000       \$2,500       \$2         KALKASKA KALKASKA CITY       2       MEDIUM INTENSITY RWY LTG       \$50,000       \$45,000       \$25,000       \$25         LANSING CAPITAL CITY       2       LAND FOR EXISTING AIRPORT       \$700,000       \$630,000       \$70         LUDINGTON MASON COUNTY       2       CLEARING       \$23,500       \$21,150       \$1,175       \$1         MANISTEE MANISTEE       1       MICROWAVE LANDING SYSTEM       \$500,000       \$450,000       \$25,000       \$25         MENOMINEE       5       TESTING EQUIPMENT       \$1,000       \$900       \$25       \$25	\$775
2       TAXIWAY LIGHTING       \$15,500       \$13,950       \$775         2       TAXIWAY LIGHTING       \$15,500       \$13,950       \$775         3       MEDIUM INTENSITY RWY LTG       \$15,500       \$13,950       \$775         KALAMAZOD MUNI       2       UTILITY RELOCATION       \$50,000       \$13,6800       \$7,600       \$13,950       \$775         KALAMAZOD MUNI       2       UTILITY RELOCATION       \$50,000       \$136,800       \$7,600       \$2,500       \$2         KALKASKA KALKASKA CITY       2       UTILITY RELOCATION       \$50,000       \$45,000       \$2,500       \$25         LANSING CAPITAL CITY       2       LAND FOR EXISTING AIRPORT       \$700,000       \$630,000       \$70         LUDINGTON MASON COUNTY       2       CLEARING       \$23,500       \$21,150       \$1,175       \$1         MANISTEE MANISTEE       1       MICROWAVE LANDING SYSTEM       \$500,000       \$450,000       \$25,000       \$25         MENOMINEE       5       TESTING EQUIPMENT       \$1,000       \$900       \$10	\$775
2       TAXIWAY LIGHTING       \$15,500       \$13,950       \$775         3       MEDIUM INTENSITY RWY LTG       \$15,500       \$136,800       \$7,600       \$13         KALAMAZDD       2       UTILITY RELOCATION       \$50,000       \$45,000       \$2,500       \$2         KALKASKA       2       MEDIUM INTENSITY RWY LTG       \$50,000       \$45,000       \$2,500       \$2         KALKASKA       CITY       2       MEDIUM INTENSITY RWY LTG       \$50,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$70         LANSING       2       LAND FOR EXISTING AIRPORT       \$700,000       \$630,000       \$70       \$70         LUDINGTON       2       CLEARING       \$23,500       \$21,150       \$1,175       \$70         MANISTEE       1       MICROWAVE LANDING SYSTEM       \$500,000       \$450,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000 <td>\$775</td>	\$775
3       MEDIUM INTENSITY RWY LTG       \$152,000       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$7,600       \$136,800       \$2,500       \$136,800       \$12,500       \$12,500       \$12,500       \$12,500       \$12,500       \$12,500       \$25,000       \$25,000       \$25,000       \$25,000       \$25,000       \$26,000       \$27,000       \$630,000       \$70,000       \$630,000       \$70,000       \$630,000       \$70,000       \$630,000       \$70,000       \$630,000       \$70,000       \$630,000       \$70,000       \$630,000       \$70,000       \$630,000       \$70,000       \$630,000       \$70,000       \$70,000       \$70,000       \$630,000       \$70,000	\$775
KALAMAZOD KALAMAZOD MUNI2UTILITY RELOCATION\$50,000\$45,000\$2,500\$2KALAMAZOD MUNI2MEDIUM INTENSITY RWY LTG\$50,000\$25,000\$25KALKASKA KALKASKA CITY2LAND FOR EXISTING AIRPORT\$700,000\$630,000\$700LANSING CAPITAL CITY2CLEARING\$23,500\$21,150\$1,175\$100LUDINGTON MASON COUNTY1MICROWAVE LANDING SYSTEM\$500,000\$450,000\$25,000\$25MANISTEE MANISTEE COBLACKER5TESTING EQUIPMENT\$1,000\$900\$300\$300	⊅//5 /,600
KALAMAZOD MUNIKALKASKA KALKASKA CITY2MEDIUM INTENSITY RWY LTG\$50,000\$25,000\$25LANSING CAPITAL CITY2LAND FOR EXISTING AIRPORT\$700,000\$630,000\$700LUDINGTON MASON COUNTY2CLEARING\$23,500\$21,150\$1,175\$1000MANISTEE MANISTEE COBLACKER1MICROWAVE LANDING SYSTEM\$500,000\$450,000\$25,000\$2500MENOMINEE5TESTING EQUIPMENT\$1,000\$900\$1000\$1000\$1000	,800
KALKASKA CITYLANSING CAPITAL CITY2LAND FOR EXISTING AIRPORT\$700,000\$630,000\$700LUDINGTON MASON COUNTY2CLEARING\$23,500\$21,150\$1,175\$1000MANISTEE MANISTEE COBLACKER1MICROWAVE LANDING SYSTEM\$500,000\$450,000\$25,000\$2500MENOMINEE5TESTING EQUIPMENT\$1,000\$900	2,500
CAPITAL CITY         LUDINGTON       2       CLEARING       \$23,500       \$21,150       \$1,175       \$1         MASON COUNTY       1       MICROWAVE LANDING SYSTEM       \$500,000       \$450,000       \$25,000       \$25         MANISTEE       1       MICROWAVE LANDING SYSTEM       \$500,000       \$450,000       \$25,000       \$25         MENOMINEE       5       TESTING EQUIPMENT       \$1,000       \$900	5,000
MASON COUNTY MANISTEE 0BLACKER MENOMINEE 5 TESTING EQUIPMENT \$1,000 \$900	,000
MANISTEE CDBLACKER MENOMINEE 5 TESTING EQUIPMENT \$1,000 \$900	,175
	,000
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	\$200
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	,500
MIDLAND 3 LENGTHEN EXISTING RUNWAY \$200,000 \$180,000 \$10,000 \$10 JACK BARSTOW	000
MONROE 1 WINDCONE \$5,000 \$4,500 \$250	\$250
	.750
	,250
GWOSSO 3 APRON FLOOD LIGHTING \$30,000 \$27,000 \$3	,000
	.000
	5,000
	7,500
	,
PELLSTON         5         CFR EQUIPMENT         \$200,000         \$180,000         \$200	000,000

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## CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

#### CATEGORY 3 STANDARDS

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LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
EMMET COUNTY	5	PERIMETER FENCING	\$55,000	\$49,500		\$5,500
PONTIAC Dakland-Pontiac	4	RELOCATE LOCAL ROAD	\$83,300	\$74,970		\$8,330
PORT HURON	1	MICROWAVE LANDING SYSTEM	\$500,000	\$450,000	\$25,000	\$25,000
ST.CLAIR COUNTY INTL	2	TAXIWAY LIGHTING	\$18,000	\$16,200		\$1,800
ROGERS CITY	1	AIRPORT BEACON	\$25,000	\$22,500	\$1,250	\$1,250
PRESQUE ISLE COUNTY	2	LAND FOR EXISTING AIRPORT	\$300,000	\$270,000		\$30,000
	5	PERIMETER FENCING	\$25,000	\$22,500		\$2,500
	2	TAXIWAY LIGHTING	\$30,000	\$27,000	\$1,250	\$1,750
SAGINAW TRI CITY	1	ELECTRONIC LANDING AIDS	\$100,000	\$90,000	\$5,000	\$5,000
SAULT STE MARIE CHIPPEWA COUNTY INTERNATIONAL	1	AIRPORT BEACON	\$26,000	\$23,400	\$1,300	\$1,300
THREE RIVERS Three, rivers municipal dr hain	2	TAXIWAY LIGHTING	\$40,200	\$36,180		\$4,020
TRAVERSE CITY	2	STRENGTHENING OVERLAY	\$70,000	\$63,000	\$3,500	\$3,500
CHERRY CAPITAL	3	TAXIWAY PAVING	\$123,000	\$110,700		\$12,300
	3	NEW TAXI	\$300,000	\$270,000		\$30,000
TROY	3	DRAINAGE	\$324,000		\$162,000	\$162,000
TROY-OAKLAND	3	TAXIWAY REHABILITATION	\$4,000	\$3,600	\$200	\$200
	3	DRAINAGE	\$266,000	******	\$133,000	\$133,000
	3	APRON DRAINAGE	\$266,000	\$239,400	\$13,300	\$13,300
	2	SEAL COAT	\$4,000	*****	\$2,000	\$2,000
	۷.	JERE VORI	\$4,000		9£,000	φ2,000

CATEGORY TOTAL \$10,688,200

\$494,385 \$1,154,035

\$9,039,780

## BUREAU OF AERONAUTICS

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## CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

#### CATEGORY 4 UPGRADING AIRPORT ROLE (UPGRADE)

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
BATTLE CREEK W K KELLOGG REGIONAL	2	STRENGTHENING OVERLAY	\$200,000	\$180,000	\$10,000	\$10,000
BENTON HARBOR Ross field	. 4 3	RELOCATE LOCAL ROAD Lengthen existing runway	\$1,620,000 \$638,000	\$1,458,000 \$574,200	\$81,000 \$31,900	\$81,000 \$31,900
HOUGHTON LAKE Roscommon county	3	LENGTHEN EXISTING RUNWAY	\$505,000	\$454,500	\$25,250	\$25,250
				,		

CATEGORT TOTAL \$2,903,000 \$2,000,700 \$1	CATEGORY TOTAL	\$2,963,000	\$2,666,700	\$14
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8,150 \$148,150

## CATEGORY 5 CAPACITY DEVELOPMENT (CAPACITY)

BELLAIRE ANTRIM COUNTY	3	NEW TAXI	\$110,000	\$99,000	\$5,500	\$5,500
CADILLAC Wexford county	3	NEW TAXI	\$100,000	\$90,000	\$5,000	\$5,000
CARD Card Muni	4 3	RELOCATE LOCAL ROAD CROSSWIND RWY CONSTR	\$370,000 \$254,000	\$333.000 \$228.600	\$12,700	\$37,000 \$12,700
CASEVILLE Caseville township airp	3 ORT 5 3	CROSSWIND RWY CONSTR AUTO PARKING NEW TAXI	\$287,000 \$30,942 \$30,000	\$258,300 \$27,848 \$27,000	\$14,350 \$1,500	\$14,350 \$3,094 \$1,500
CHARLEVOIX CHARLEVOIX MUNI	Э	APRON EXPANSION	\$35,000	\$31,500		\$3,500
DETROIT Detroit metropolitan wa	3 YNE COU	APRON EXPANSION	\$4,300,000	\$3,225,000		\$1,075,000
GRAND HAVEN Grand haven meml airpar	4 K 4	TAXISTREET CONSTR CONSTR NEW APRON	\$170,000 \$127,000	\$153,000 \$114,300		\$17,000 \$12,700
HANCOCK Houghton county memoria	3 L	NEW TAXI	\$3,000,000	\$2,700,000	\$150,000	\$150,000
HOUGHTON LAKE Roscommon county	Э	TURNAROUND	\$25,000	\$22,500	\$1,250	\$1,250

## CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

## CATEGORY 5 CAPACITY DEVELOPMENT (CAPACITY)

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LDCAL FUNDS
HOWELL LIVINGSTON COUNTY	3	PARALLEL TAXIWAY PAVING	\$350,000	\$315,000	\$17,500	\$17,500
IRON MOUNTAIN/KINGSFORD	Э	NEW TAXI	\$1,600,000	\$1,440,000	\$80,000	\$80,000
FORD	4	PASSENGER LOADING BRIDGE	\$288,000	\$144,000		\$144,000
JACKSON	з	NEW TAXI	\$495,000	\$445,500	\$24,750	\$24,750
JACKSON COUNTY-REYNOLDS FIELD	З.	LENGTHEN EXISTING RUNWAY	\$700,000	\$630,000	\$35,000	\$35,000
KALAMAZOO Kalamazoo muni	Э	LENGTHEN EXISTING RUNWAY	\$169,000	\$152,100	\$8,450	\$8,450
LANSING	з	LENGTHEN EXISTING RUNWAY	\$800,000	\$720.000	\$40,000	\$40,000
CAPITAL CITY	1	ELECTRONIC LANDING AIDS	\$400,000	\$360,000	\$20,000	\$20,000
	3	APRON EXPANSION	\$300,000	\$270,000	\$15,000	\$15,000
LUDINGTON	з	NEW TAXI	\$100,000	\$90,000	\$5,000	\$5,000
MASON COUNTY	Э	NEW TAXI	\$300,000	\$270,000	\$15,000	\$15,000
	3	NEW TAXI	\$38,000	\$34,200	\$1,900	\$1,900
	3	APRON EXPANSION	\$84,275	\$75,848	\$4,214	\$4,213
-	3	NEW TAXI	\$88,000	\$79,200	\$4,400	\$4,400
MASON Mason Jewett Fiëld	2	LENGTHEN EXISTING RUNWAY	\$575,000		\$287,500	\$287,500
0\0550	Э	APRON EXPANSION	\$130,000	\$117,000	\$6,500	\$6,500
OWOSSO CITY	3	APRON EXPANSION	\$93,000	\$83,700	\$4,650	\$4,650
	Э	NEW TAXI	\$175,000	\$157,500	\$8,750	\$8,750
PELLSTON	2	STRENGTHENING OVERLAY	\$375,000	\$337,500	\$18,750	\$18,750
EMMET COUNTY	3	APRON EXPANSION	\$500,000	\$450,000	\$25,000	\$25,000
PONTIAC DAKLAND-PONTIAC	2	STRENGTHENING OVERLAY	\$112,500	\$101,250	\$5,625	\$5,625
PORT HURON	3	NEW TAXI	\$100,000	\$90,000		\$10,000
ST.CLAIR COUNTY INTL	4	CONSTR NEW APRON	\$144,000	\$129,600		\$14,400
ROGERS CITY Presque isle county	3	NEW TAXI	\$100,000	\$90,000	\$2,500	\$7,500
SAGINAW Harry W. Browne	4	CONSTR NEW APRON	\$142,000	\$127,800		\$14,200

#### BUREAU OF AERONAUTICS

#### CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

#### CATEGORY 5 CAPACITY DEVELOPMENT (CAPACITY)

LOCATION /Airport	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
SAGINAW	2	PRIMARY APPROACH CONSTR	\$100,000	\$80,000	\$10,000	\$10,000
TRI CITY	3	LENGTHEN EXISTING RUNWAY	\$1,750,000	\$1,575,000	\$87,500	\$87,500
THREE RIVERS	з	APRON EXPANSION	\$39,000	\$35,100	\$1,950	\$1,950
THREE RIVERS MUNICIPAL DR HAI	й Э	NEW TAXI	\$211,630	\$190,467		\$21,163
	3	NEW TAXI	\$93,000	\$83,700		\$9,300
	4	TAXISTREET CONSTR	\$100,000	\$90,000		\$10,000
TROY	3	TAXIWAY PAVING	\$4,000		\$2,000	\$2,000
TROY-OAKLAND	5	WATER AND SEWER	\$50,000			\$50,000
	4	ACCESS RDADS	\$18,000			\$18,000

CATEGORY	TOTAL	\$19,363,347	\$16.074.513

\$922,239 \$2,366,595

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CATEGORY 6 NEW AIRPORTS-CAPACITY

WIXOM Spencer field	2	LAND FOR NEW A	IRPORT	\$2,100,000	\$1,890,000	\$105,000	\$105,000
			CATEGORY TOTAL	\$2,100,000	\$1,890,000	\$105,000	\$ 105,000

#### CATEGORY 7 NEW AIRPORTS-COMMUNITY

PAW PAW Almena	2	LAND FOR NEW AIRPORT	\$600,000	\$540,000	\$30,000	\$30,000
		CATEGORY TOTAL	\$600.000	\$540,000	\$30,000	\$30.000

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## BUREAU OF AERONAUTICS

## CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

## CATEGORY 8 EQUIPMENT AND BUILDINGS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
CADILLAC WEXFORD COUNTY	5	SRE FRONT END LOADER	\$110,000	\$99,000		\$11,000
CHARLEVOIX CHARLEVOIX MUNI	5	SRE SNOWBLOWER	\$100,000	\$90,000		\$10,000
DETROIT WILLOW RUN	5	PERIMETER FENCING	\$60,000	\$54,000		\$6,000
ESCANABA	4	PASSENGER LOADING BRIDGE	\$240,000	\$120,000		\$120,000
DELTA COUNTY	4	AUTO PARKING	\$60,000	\$54,000		\$6,000
	4	TERMINAL BUILDING	\$800,000	\$400,000		\$400,000
GAYLORD	5	SRE SNOWBLOWER	\$140,000	\$126,000		\$14,000
OTSEGO COUNTY	5	SRE TRUCK PLOW/BLADE	\$100,000	\$90,000		\$10,000
019200 000111	5	SRE BROOM	\$100,000	\$90,000		\$10,000
GRAND RAPIDS KENT COUNTY INTL	4	TERMINAL BUILDING	\$320,000	\$160,000		\$160,000
HANCOCK Houghton county memorial	5	SRE SNOWBLOWER	\$150,000	\$135,000		\$15,000
IRON MOUNTAIN/KINGSFORD FORD	5	SRE GRADER	\$100,000	\$90,000		\$10,000
KALAMAZOO	5	SERVICE ROAD	\$120,000	\$108,000		\$12,000
KALAMAZOO MUNI	5	WATER AND SEWER	\$35,000	\$31,500		\$3,500
LANSING	5	SRE SNOWBLOWER	\$140,000	\$126,000		\$14,000
CAPITAL CITY	5	SRE TRUCK PLOW/BLADE	\$120,000	\$108,000		\$12,000
MANISTEE	F	PERIMETER FENCING	<b>A</b> 4 <b>B</b> 000	¢ 4 ₽ . 000		¢4,000
MANISTEE COBLACKER	5	SECURITY FENCING	\$48,000 \$100,000	\$43,200 \$90,000	\$5,000	\$4,800 \$5,000
MARQUETTE Marquette County	4	TERMINAL BUILDING	\$760,000	\$168,660		\$591,340
MUSKEGDN MUSKEGDN COUNTY	5	SRE FRONT END LOADER	\$170,500	\$139,500	• •	\$31,000
OWOSSO	4	TAXISTREET CONSTR	\$30,000	\$27,000		\$3,000
OWOSSO CITY	4	ACCESS ROADS	\$50,000	\$45,000		\$5,000
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## BUREAU OF AERONAUTICS

#### CAPITAL OUTLAY PROGRAM

#### PRIORITY C PROJECTS

#### CATEGORY 8 EQUIPMENT AND BUILDINGS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
PONTIAC	4	ACCESS ROADS	\$22,100	\$19,890		\$2,210
OAKLAND-PONTIAC	4	TAXISTREET CONSTR	\$449,000	\$404,100		\$44,900
	4	AUTO PARKING	\$36,300	\$32,670		\$3,630
PORT HURON St.clair county intl	5	SRE TRUCK PLOW/BLADE	\$90,000	\$81,000		\$9,000
SAULT STE MARIE	5	SRE TRUCK PLOW/BLADE	\$266,000	\$239,400		\$26,600
CHIPPEWA COUNTY INTERNATIONAL	5	SRE SNOWBLOWER	\$202,000	\$181,800		\$20,200
		CATEGORY TOTAL	\$4,918,900	\$3,353,720	\$5,000	\$1,560,180

GRAND TOTAL

\$46,080,947 \$37,855,463 \$2,276,499 \$5.948,985

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## CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
CARO Card Muni	3 5	NEW TAXI Fuel facility	\$146,975 \$47,000	\$132,277 \$42,300	\$7,349 \$2,350	\$7,349 \$2,350
		CATEGORY TOTAL	\$193,975	\$174,577	\$9,699	\$9,699
-						
CATEGORY 2 RECONSTRUCTION						
ADRIAN The lenawee county	3	PAVE EXISTING RUNWAY	\$105,050	\$94,550	\$5,250	\$5,250
ALLEGAN Padgham field	3	RUNWAY REHABILITATION	\$180,000	\$162,000	\$9,000	\$9,000
BALDWIN Baldwin Muni	3	PAVE EXISTING RUNWAY	\$122,000	\$109,800	\$6,100	\$6,100
BATTLE CREEK W K KELLOGG REGIONAL	2 3	SITE PREPARATION DRAINAGE	\$4,000 \$9,000	\$3,600 \$8,100	\$200	\$200 \$900
BIG RAPIDS Roben-Hood	3 3 3 2	TAXIWAY PAVING PAVE EXISTING RUNWAY OVERLAY APRON PRIMARY RWY CONSTRUCTION	\$18,000 \$200,000 \$20,000 \$766,000	\$16,200 \$180,000 \$18,000 \$689,400	\$900 \$10,000 \$1,000 \$38,300	\$900 \$10,000 \$1,000 \$38,300
DETROIT WILLOW RUN	3 3	RUNWAY REHABILITATION RUNWAY REHABILITATION	\$5,520,000 \$950,000	\$4,968,000 \$855,000	\$276,000 \$47,500	\$276,000 \$47,500
ESCANABA Delta county	3	APRON EXPANSION	\$70,000	\$63,000	\$3,500	\$3,500
GRAYLING MCNAMARA	3	PAVE EXISTING RUNWAY	\$1,200,000	\$1,080,000	\$60,000	\$60,000
PELLSTON Emmet county	3	RUNWAY SURFACE TREATMENT	\$300,000	\$270,000	\$15,000	\$15,000
STANDISH STANDISH INDUSTRIAL	2	PAVE EXISTING RUNWAY	\$99,000	, and the second s	\$49,500	\$49,500

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#### CAPITAL PROGRAM OUTLAY

#### PRIORITY C PROJECTS

CATEGORY 2 RECONSTRUCTION

LOCATION /Airport	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL
TRAVERSE CITY CHERRY CAPITAL	3	PAVE EXISTING RUNWAY	\$1,398,100	\$1,258,290	\$69,905	\$69,905
		CATEGORY TOTAL	\$10,961,150	\$9,775,940	\$592,155	\$593,055
CATEGORY 3 STANDARDS						
BENTON HARBOR Ross Field	2	LAND FOR EXISTING AIRPORT	\$93,000	\$83,700		\$9,300
BIG RAPIDS Roben-Hood	1	VASI	\$30,000	\$27,000	\$1,500	\$1,500
GAYLORD Otsego county	3 3 3	WIDEN EXISTING RUNWAY MEDIUM INTENSITY RWY LTG TAXIWAY PAVING	\$200,000 \$71,000 \$271,000	\$180,000 \$63,900 \$243,900	\$10,000 \$3,550 \$13,550	\$10,000 \$3,550 \$13,550
HOWELL LIVINGSTON COUNTY	† 2 1	MICROWAVE LANDING SYSTEM Taxiway lighting Rail	\$400,000 \$120,000 \$15,000	\$360,000 \$108,000 \$13,500	\$20,000 \$6,000 \$750	\$20,000 \$6,000 \$750
JACKSON JACKSON COUNTY-REYNOLDS FIELD	2	LAND FOR EXISTING AIRPORT	\$300,000	\$270,000		\$30,000
KALAMAZOO Kalamazoo muni	2	CLEARING	\$105,000	\$94,500	\$5,250	\$5,250
MARQUETTE Marquette County	2	TAXIWAY LIGHTING	\$30,000	\$27,000	\$1,500	\$1,500
MT PLEASANT MT PLEASANT MUNICIPAL	1	MICROWAVE LANDING SYSTEM	\$500,000	\$450,000	\$25,000	\$25,000
PAW PÁW Almena	3	MEDIUM INTENSITY RWY LTG	\$90,000	\$81,000	\$4,500	\$4,500
THREE RIVERS THREE RIVERS MUNICIPAL DR HAIM	2	LAND FOR EXISTING AIRPORT	\$705,000	\$634,500		\$70,500

CATEGORY TOTAL \$2,930,000 \$2,637,000

\$91,600 \$201,400

## CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

## CATEGORY 4 UPGRADING AIRPORT ROLE (UPGRADE)

LOCATION /Airport	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
BATTLE CREEK W K KELLOGG REGIONAL	2	STRENGTHENING OVERLAY	\$200,000	\$180,000	\$10,000	\$10,000
PONTIAC Oakland-Pontiac	Э	LENGTHEN EXISTING RUNWAY	\$720,000	\$648,000	\$36,000	\$36,000
		CATEGORY TOTAL	\$920,000	\$828,000	\$46,000	\$46,000
CATEGORY 5 CAPACITY DEVE	LOPMENT (CAPACITY)	-				
ADRIAN The lenawee county	3	LENGTHEN EXISTING RUNWAY	\$91,000	\$81,900	\$4,550	\$4.550
ALLEGAN PADGHAM FIELD	Э	LENGTHEN EXISTING RUNWAY	\$427,500	\$384,750	\$21,375	\$21,375
CARD Card Muni	4 4	CONSTR NEW APRON TERMINAL BUILDING	\$81,790 \$50,000	\$73,611	\$4,089	\$4,090 \$50,000
CASEVILLE Caseville township airf	3 PORT	NEW TAXI	\$200,000	\$180,000	\$10,000	\$10,000
DETROIT DETROIT METROPOLITAN WA	AYNE COU 4	NEW TAXI ACCESS ROADS	\$2,900,000 \$2,800,000	\$2,610,000 \$2,520,000		\$290,000 \$280,000
DOWAGIAC CASS COUNTY MEML	4 3	AUTO PARKING RECONSTRUCT APRON	\$46,500 \$161,000	\$41,850 \$144,900	\$8,050	\$4,650 \$8,050
GRAND LEDGE Abrams Muni	3	NEW TAXI	\$610,000	\$549,000	\$30,500	\$30,500
GRAND RAPIDS Kent county intl	3	NEW TAXI	\$1,500,000	\$1,350,000	\$75,000	\$75,000
HOUGHTON LAKE Roscommon County	3 3	NEW TAXI Crosswind Rwy Constr	\$70,000 \$210,500	\$63,000 \$189,450	\$3,500 \$10,525	\$3,500 \$10,525
IRONWOOD Gogebic County	3 3	APRON EXPANSION CROSSWIND RWY CONSTR	\$200,000 \$2,057,500	\$180,000 \$1,851,750	\$10,000 \$102,875	\$10,000 \$102,875

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#### OUTLAY PROGRAM CAPITAL

## PRIORITY C PROJECTS

#### CATEGORY 5 CAPACITY DEVELOPMENT (CAPACITY)

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
JACKSON JACKSON COUNTY-REYNOLDS FIELD	2	STRENGTHENING OVERLAY	\$87,000	\$78,300	\$4,350	\$4,350
LUDINGTON Mason county	2	STRENGTHENING OVERLAY	\$34,000	\$30,600	\$1,700	\$1,700
MANISTEE Manistee coBlacker	3	NEW TAXI	\$115,000	\$103,500	\$5,750	\$5,750
MARSHALL BROOKS FIELD	3 2 4 5	APRON EXPANSION STRENGTHENING OVERLAY ACCESS ROADS PERIMETER FENCING	\$141,000 \$61,000 \$12,000 \$40,000	\$126,900 \$54,900 \$10,800 \$36,000	\$7,050 \$3,050	\$7,050 \$3,050 \$1,200 \$4,000
MASON Mason Jewett Field	3	NEW TAXI	\$345,000		\$172,500	\$172,500
MENOMINEE Menominee-Marinette twin count	. 4	AUTO PARKING	\$155,000	\$139,500		\$15,500
MONROE Monroe custer	3 2	TAXIWAY PAVING Strengthening Overlay	\$20,000 \$40,000	\$18,000 \$36,000	\$1,000 \$2,000	\$1,000 \$2,000
NEWBERRY Luce county hale	3	NEW TAXI	\$166,000	\$149,400	\$8,300	\$8,300
PAW PAW Almena	3	CROSSWIND RWY CONSTR	\$137,000	\$123,300	\$6,850	\$6,850
PORT HURON ST.CLAIR COUNTY INTL	3	LENGTHEN EXISTING RUNWAY	\$275,000	\$247,500	\$13,750	\$13,750
WEST BRANCH WEST BRANCH COMMUNITY	3	PARALLEL TAXIWAY PAVING	\$570,000	\$513,000	\$26,550	\$30,450

CATEGORY TOTAL \$13,603,790 \$11,887,911 \$533,314 \$1,182,565

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## CAPITAL OUTLAY PROGRAM

## PRIORITY C PROJECTS

## CATEGORY 7 NEW AIRPORTS-COMMUNITY

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
CRYSTAL FALLS IRON COUNTY	2	LAND FOR NEW AIRPORT	\$585,000	\$526,500	\$29,250	\$29,250
		CATEGORY TOTAL	\$585,000	\$526,500	\$29,250	\$29,250
CATEGORY 8 EQUIPMENT AND BUIL	DINGS					
CADILLAC WEXFORD COUNTY	5 5 5	SRE SANDER/SPREADER SRE SNOWBLOWER EQUIPMENT STÖRAGE BUILD	\$40,000 \$140,000 \$108,000	\$36,000 \$126,000 \$97,200		\$4,000 \$14,000 \$10,800
CASEVILLE CASEVILLE TOWNSHIP AIRPORT	4	ACCESS ROADS	\$292,100	\$262,890		\$29,210
FLINT BISHOP	4	ACCESS ROADS	\$750,000	\$675,000		\$75,000
GRAND RAPIDS KENT COUNTY INTL	4	TAXISTREET CONSTR	\$500,000	\$450,000		\$50,000
HANCOCK Houghton county memorial	4	TERMINAL BUILDING	\$50,000			\$50,000
IRON MOUNTAIN/KINGSFORD FORD	5	SRE TRUCK PLOW/BLADE	\$80,000	\$72,000		\$8,000
IRONWOOD Gogebic County	4	TERMINAL BUILDING	\$800,000	\$400,000	\$200,000	\$200,000
KALAMAZOO Kalamazoo muni	4	ACCESS ROADS	\$100,000	\$90,000	·	\$10,000
MARQUETTE Marquette County	5	CFR EQUIPMENT	\$21,000	\$18,900		\$2,100
MENOMINEE Menominee-marinette twin cou	4 JNT	TERMINAL BUILDING	\$760,000	\$380,000		\$380,000
MUSKEGON Muskegon County	1	SECURITY FENCING	\$159,000	\$143,100	\$7,950	\$7,950

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#### CAPITAL OUTLAY PROGRAM

#### PRIORITY C PROJECTS

#### CATEGORY 8 EQUIPMENT AND BUILDINGS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
PAW PAW Almena	5	PERIMETER FENCING	\$81,000	\$72,900		\$8,100
PORT HURON St.Clair county intl	5	TIE-DOWN AREA	\$45,000	\$40,500		\$4,500
SAGINAW Harry W. Browne	4 4 4	AUTO PARKING Access Roads Terminal building	\$109,400 \$36,000 \$50,000	\$98,460 \$32,400		\$10,940 \$3,600 \$50,000
SAULT STE MARIE Chippewa county international	4	RECONSTRUCT TERMINAL BLDG	\$50,000			\$50,000
		CATEGORY TOTAL	\$4,171,500	\$2,995,350	\$207.950	\$968.200

GRAND TOTAL \$33,365,415 \$28,825,278 \$1,509,968 \$3,030,169

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## BUREAU OF AERONAUTICS

#### CAPITAL OUTLAY PROGRAM

#### PRIORITY C PROJECTS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
CARO Caro Muni	5 3 1	PERIMETER FENCING New Taxi Segmented Circle	\$44,500 \$82,710 \$4,000	\$40,050 \$74,439 \$3,600	\$2,225 \$4,135 \$200	\$2,225 \$4,136 \$200
		CATEGORY TOTAL	\$131,210	\$118,089	\$6,560	\$6,561
CATEGORY 1 SPECIAL PROGRA	MS/SAFETY					
MUSKEGON MUSKEGON COUNTY	1	MASTER PLAN	\$100,000	\$90,000	\$5,000	\$5,000
		CATEGORY TOTAL	\$100,000	\$90,000	\$5,000	\$5,000
CATEGORY 2 RECONSTRUCTION	ł					
BATTLE CREEK W K KELLOGG REGIONAL	3	PAVE EXISTING RUNWAY	\$374,813	\$337,332	\$18,741	\$18,740
BIG RAPIDS Roben-Hood	2	NEW TAXI	\$500,000	\$450,000	\$25,000	\$25,000
CADILLAC Wexford County	3 3 3	OVERLAY APRON Taxiway paving Pave Existing Runway	\$100,000 \$100,000 \$200,000	\$90,000 \$90,000 \$180,000	\$5,000 \$5,000 \$10,000	\$5,000 \$5,000 \$10,000
CHEBOYGAN Cheboygan City-County	З	DRAINAGE	\$20,000	\$18,000	\$1,000	\$1,000
GRAND HAVEN GRAND HAVEN MEML AIRPARK	3	PAVE EXISTING RUNWAY	\$121,000	\$108,900	\$6,050	\$6,050
HART/SHELBY Oceana county	3	PAVE EXISTING RUNWAY	\$44,000	\$39,600	\$2,200	\$2,200
HOWELL	. 3	TAXIWAY PAVING	\$40,000	\$36,000	\$2,000	\$2,000

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#### OUTLAY PROGRAM CAPITAL

#### PRIORITY C PROJECTS

CATEGORY 2 RECONSTRUCTION

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL Funds
LIVINGSTON COUNTY	3	OVERLAY APRON	\$35,000	\$31,500	\$1,750	\$1,750
IRONWOOD GDGEBIC COUNTY	3 3	TAXIWAY REHABILITATION TAXIWAY REHABILITATION	\$200,000 \$200,000	\$180,000 \$180,000	\$10,000 \$10,000	\$10,000 \$10,000
LUDINGTON MASON COUNTY	3	PAVE EXISTING RUNWAY	\$220,000	\$198,000	\$11,000	\$11,000
MENOMINEE	3	SEAL COAT	\$40,000	\$36,000	\$2,000	\$2,000
MENOMINEE-MARINETTE TWIN COUNT	3	RUNWAY SURFACE TREATMENT	\$102,000	\$91,800	\$5,100	\$5,100
MUSKEGON Muskegon county	3	RUNWAY REHABILITATION	\$1,051,000	\$945,900	\$52,550	\$52,550
NEWBERRY Luce county hale	3	TAXIWAY PAVING	\$12,900	\$11,610	\$645	\$645
SPARTA SPARTA	2	PRIMARY RWY CONSTRUCTION	\$65,000	\$58,500	\$3,250	\$3,250
TRAVERSE CITY Cherry Capital	3	PAVE EXISTING RUNWAY	\$310,000	\$279,000	\$15,500	\$15,500
		CATEGORY TOTAL	\$3,735,713	\$3,362,142	\$186,786	\$186,785
CATEGORY 3 STANDARDS						
BAD AXE HURON COUNTY MEMORIAL	2	LAND FOR EXISTING AIRPORT	\$240,000	\$216,000		\$24,000
BIG RAPIDS Roben-Hood	3	NEW TAXI	\$500,000	\$450,000	\$25,000	\$25,000
CHEBOYGAN	1	VASI	\$45,000	\$40,500	\$2,250	\$2,250
CHEBOYGAN CITY-COUNTY	2	LAND FOR EXISTING AIRPORT	\$140,000	\$126,000		\$14,000
	2	TAXIWAY LIGHTING	\$15,000	\$13,500	\$750	\$750

WIDEN EXISTING RUNWAY

\$300,000

\$270,000

\$15,000

\$15,000

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DETROIT

DETROIT CITY

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CAPITAL OUTLAY PROGRAM PRIORITY C PROJECTS

#### CATEGORY 3 STANDARDS

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
DOWAGIAC CASS COUNTY MEML	З	MEDIUM INTENSITY RWY LTG	\$20,000	\$18,000	\$1,000	\$1,000
FREMONT FREMONT MUNI	1	MICROWAVE LANDING SYSTEM	\$500,000	\$450,000	\$25,000	\$25,000
GAYLORD Otsego county	· 1	MICROWAVE LANDING SYSTEM	\$500,000	\$450,000	\$25,000	\$25,000
GRAND HAVEN Grand Haven meml Airpark	2	LAND FOR EXISTING AIRPORT	\$39,000	\$35,100		\$3,900
HOUGHTON LAKE Roscommon County	3	MEDIUM INTENSITY RWY LTG	\$95,000	\$85,500	\$4,750	\$4,750
ONTONAGON Ontonagon County	2	LAND FOR EXISTING AIRPORT	\$25,000	\$22,500		\$2,500
		CATEGORY TOTAL	\$2,419,000	\$2,177,100	\$98,750	\$143,150
CATEGORY 4 UPGRADING AIRPORT	ROLE (UPGRADE)	)	·	4 - 1 - 1		
BAY CITY	2	STRENGTHENING OVERLAY	\$52,300	\$47,070	\$2,615	\$2,615
		CATEGORY TOTAL	\$52,300	\$47,070	\$2,615	\$2,615

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#### CAPITAL OUTLAY PROGRAM

### PRIORITY C PROJECTS

#### CATEGORY 5 CAPACITY DEVELOPMENT (CAPACITY)

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM Description	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
BAY CITY JAMES CLEMENTS MUNI	3 4 4	NEW TAXI Constr New Apron Taxistreet Constr	\$303,500 \$88,700 \$81,700	\$273,150 \$79,830 \$73,530	\$15,175 \$4,435 \$4,085	\$15,175 \$4,435 \$4,085
CHARLEVOIX CHARLEVOIX MUNI	3 3	NEW TAXI LENGTHEN EXISTING RUNWAY	\$100,000 \$100,000	\$90,000 \$90,000	\$5,000 \$5,000	\$5,000 \$5,000
DETROIT WILLOW RUN	3	LENGTHEN EXISTING RUNWAY	\$2,200,000	\$1,980,000	\$110,000	\$110,000
FLINT BISHOP	3 4	NEW TAXI Constr New Apron	\$250,000 \$250,000	\$225,000 \$225,000	\$12,500	\$12,500 \$25,000
GRAND HAVEN Grand Haven Meml Airpark	3	APRON EXPANSION	\$127,000	\$114,300	\$6,350	\$6,350
HILLSDALE HILLSDALE MUNI	3 4 3 4	TAXIWAY PAVING TAXISTREET CONSTR CROSSWIND RWY CONSTR AUTO PARKING	\$15,000 \$20,000 \$750,000 \$25,000	\$13,500 \$18,000 \$675,000 \$22,500	\$750 \$37,500	\$750 \$2,000 \$37,500 \$2,500
IONIA Ionia county	3	LENGTHEN EXISTING RUNWAY NEW TAXI	\$180,000 \$133,000	\$162,000 \$119,700	\$9,000 \$6,650	\$9,000 \$6,650
IRON MOUNTAIN/KINGSFORD FORD	3	NEW TAXI	\$1,600,000	\$1,440,000	\$80,000	\$80,000
LUDINGTON Mason County	3	NEW TAXI	\$110,000	\$99,000	\$5,500	\$5,500
MENOMINEE MENOMINEE-MARINETTE TWIN COUNT	4 r	CONSTR NEW APRON	\$450,000	\$423,000		\$27,000
MIDLAND Jack Barstow	3	LENGTHEN EXISTING RUNWAY	\$203,000	\$182,700	\$10,150	\$10,150
NEWBERRY LUCE CDUNTY HALE	3 4 4	NEW TAXI Auto parking Access roads	\$110,000 \$12,000 \$67,000	\$99,000 \$10,800 \$60,300	\$5,500	\$5,500 \$1,200 \$6,700
ONTONAGON Ontonagon County	. 3	CROSSWIND RWY CONSTR	\$262,000	\$235,800	\$13,100	\$13,100

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#### CAPITAL OUTLAY PROGRAM

### PRIORITY C PROJECTS

## CATEGORY 5 CAPACITY DEVELOPMENT (CAPACITY)

LOCATION /AIRPORT	PRIORITY	PROJECT ITEM DESCRIPTION	TOTAL EST. COST	FEDERAL FUNDS	STATE FUNDS	LOCAL FUNDS
PAW PAW Almena	3	NEW TAXI	\$180,000	\$162,000	\$9 <u>,</u> 000	\$9,000
SAGINAW Marry W. Browne	3	LENGTHEN EXISTING RUNWAY	\$1,062,000	\$955,800	\$53,100	\$53,100
•		CATEGORY TOTAL	\$8,679,900	\$7,829,910	\$392,795	\$457,195
CATEGORY 8 EQUIPMENT AND BUI	LDINGS					
BELLAIRE ANTRIM COUNTY	5 5 5	SRE TRUCK PLOW/BLADE SRE FRONT END LOADER EQUIPMENT STORAGE BUILD SRE SNOWBLOWER	\$100,000 \$70,000 \$250,000 \$110,000	\$90,000 \$63,000 \$225,000 \$99,000		\$10,000 \$7,000 \$25,000 \$11,000
FLINT BISHOP	4	TERMINAL BUILDING	\$3,500,000	\$1,750,000	\$250,000	\$1,500,000
GAYLORD Otsego county	5 5	SRE TRUCK PLOW/BLADE SRE SNOWBLOWER	\$100,000 \$140,000	\$90,000 \$126,000		\$10,000 \$14,000
GRAND HAVEN GRAND HAVEN MEML AIRPARK	4	TAXISTREET CONSTR	\$170,000	\$153,000		\$17,000
GRAND RAPIDS KENT COUNTY INTL	4	RECONSTRUCT TERMINAL BLDG	\$700,000	\$350,000		\$350,000
IRONWOOD Gogebic County	5	TIE-DOWN AREA	\$390,000	\$351,000		\$39,000
MARQUETTE MARQUETTE COUNTY	4	PASSENGER LOADING BRIDGE	\$240,000	\$120,000		\$120,000
PORT HURON St.clair county intl	5 5	CFR EQUIPMENT EQUIPMENT STORAGE BUILD	\$150,000 \$200,000	\$135,000 \$180,000		\$15,000 \$20,000
TRAVERSE CITY	4	PASSENGER LOADING BRIDGE	\$240,000	\$120,000		\$120,000
		CATEGORY TOTAL	\$6,360,000	\$3,852,000	\$250,000	\$2,258,000

GRAND TOTAL \$21,478,123 \$17,476,311 \$942,506 \$3,059,306

# COMPREHENSIVE TRANSPORTATION FUND PROGRAM

## Comprehensive Transportation Fund

## Introduction

The Comprehensive Transportation Fund (CTF) is a special revenue fund administered by the Michigan Department of Transportation, created for the purpose of planning and developing public transportation systems and services within the state. The CTF receives 10% of the Michigan Transportation Fund (after deductions), a percentage of the motor vehicle related sales tax, available federal matching funds, and earnings on investments and miscellaneous revenues.

The CTF is distributed to eligible authorities, eligible governmental agencies, intercity bus carriers, rail carriers, and the Department for public transportation purposes. Act 51 of 1951, as amended, describes in Section 10e, (2) through (4), the priority distribution of the CTF appropriations. The first priority is principal and interest on bonds and notes. The second priority is CTF administration. The balance of the CTF is to be expended pursuant to the state transportation program approved by the Commission according to the following percents:

65%	Local transit operating
5%	New small bus and specialized services
8%	Intercity passenger
5%	Intercity freight
17%	Transportation development account
100%	

The CTF section of the FY 1985 Transportation Program is organized into three parts. Part 1 presents FY 1985 revenue estimates and a summary of the proposed allocation by program. Part 2 provides system inventory and performance information for FY 1983 (where available). Part 3 provides a detailed description of each program category and the projects within those categories.

## FY 1984-85 CTF Program

## PART 1

## Revenue Estimates and Proposed Allocation by Program

Table CTF-1 shows the estimated revenue for FY 1984-85 for the Comprehensive Transportation Fund. Table CTF-2 represents the estimated federal grant funds to be distributed directly to local transit agencies and AMTRAK in Michigan in FY 1985. Table CTF-3 summarizes the distribution of CTF funds to the various priority categories discussed in the introduction. Table CTF-4 represents the distribution of CTF funds by program category and projects.

## Comprehensive Transportation Fund

## 1984-85 Estimated Revenue

Gas and Weight Tax	<pre>\$ 81,547,900</pre>
Sales Tax	33,400,000
Miscellaneous	<u>8,249,000</u>
CTF Subtotal	\$123,196,900
Intercity Bus Loan Fund	\$ 1,840,700
Rail Loan Fund	575,000
Loan Funds Subtotal	\$ 2,415,700
UMTA Section 18* UMTA Section 8** UMTA Section 6*** UMTA Section 16 (b)(2)**** Federal Railroad Administration (Rail Freight) Federal Funds Subtotal	$\begin{array}{c} \$ & 4,000,000 \\ & 330,000 \\ 1,280,000 \\ & 800,000 \\ & 505,000 \\ \$ & 6,915,000 \end{array}$

Total Appropriated Funds \$132,527,600

\* Grant program for areas other than urbanized areas.

\*\* Planning and technical studies.

\*\*\* Research, development, and demonstration projects.

\*\*\*\* Transportation services to meet the needs of the elderly and the handicapped.

### ESTIMATED FEDERAL GRANT FUNDS TO LOCAL TRANSIT AGENCIES AND AMTRAK IN MICHIGAN FY 1985

### Federal Program

UMTA Section 9 -Transit Operating Assistance for Urbanized Areas (50,000 or more population)

UMTA Section 9 -Transit Capital Assistance for Urbanized Areas (50,000 or more population) 80/20

UMTA Section 3 -Discretionary Capital Assistance 75/25

Amtrak Section 403(b) Rail Passenger Operating 35/65

Amtrak Section 403(b) Rail Passenger Capital 50/50

### Description

Funds are apportioned to public bodies based on population and population density for areas under 200,000 and on population, population density, route miles and vehicle miles for areas over 200,000. There is a cap on federal participation of 50 percent of net project deficits as well as a limitation on the amount from Section 9 that can be used for operating. UMTA requires that recipient local agencies hold public hearings to obtain the view of citizens on the proposed program. Replaces previous Section 5 operating funds. This estimate is based on the maximum authorizations.

Funds are apportioned to public bodies based on population and population density for areas under 200,000, and on population, population density, route miles and vehicle revenue miles for areas of over 200,000. Funds may be used for routine capital items such as purchase of vehicles and construction or rehabilitation of facilities that are included in an area's transportation improvement program/ annual element. Actual grants are based on approval of a grant application and availability of the required 20 percent local match. Apportioned funds remain available for a period of four years. The first amount shown is the FY 1985 estimated apportionment for Michigan transit systems. The second amount is the estimated federal funds Michigan will be able to capture.

For bus related projects, limited Section 3 funds are available only after a recipient in an urbanized area has programmed all of its available Section 9 funds. A limited amount of Section 3 funds may also be available for bus capital projects in nonurbanized areas. Section 3 discretionary funds for bus related purposes primarily supplement Section 9 funds for major projects related to continued deterioration or safety. The majority of Section 3 funds are for rail modernization and new rail starts, such as the SEMTA central automated transit system. The source of Section 3 funds is the Mass Transit Account of the Highway Trust Fund.

Michigan's rail passenger program is planned and provided in cooperation with Amtrak. The operating deficit is funded on a 35 percent Amtrak/65 percent Michigan basis, based on a cost allocation plan that utilizes short-term avoidable costs.

Track upgrading, signal improvements, and facility improvements on state-supported Amtrak routes are funded on a 50 percent Amtrak/50 percent Michigan basis. Estimated Amount

Apportionment \$35,000,000

Apportionment \$29,000,000 Grants \$19,000,000

Apportionment N/A Grants \$23,550,000

Amtrak \$ 1,500,000

Amtrak \$ 2,250,000

# Comprehensive Transportation Fund

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# Summary of Distribution of Funds FY 1984-85

	CTF	Loan	Federal	Total
Debt Service	\$ 22,339,000			\$ 22,339,000
Interfund Transfers Administration Local Transit Operating (65%)	1,017,400 7,525,500 60,004,800	,		1,017,400 7,525,500 60,004,800
Non-urban bus Operating-Capital New Small Bus (5%) Intercity Passenger (8%)	4,615,700 7,385,200	\$1,840,700	\$4,000,000	4,000,000 4,615,700 9,225,900
Intercity Freight (5%) Transportation Development (17%)	4,615,800 15,693,500	575,000	505,000 2,410,000	5,695,800 18,103,500
	\$123,196,900	\$2,415,700	\$6,915,000	\$132,527,600

## Comprehensive Transportation Fund By Program Category FY 1984-85

	State	Loan	Federal	Total
1. Local Transit Operating				
a) Statutory operating assistance b) Non-urbanized operating/capital	\$60,004,800 		\$ <u>4,000,000</u>	\$60,004,800 
Subtotal	\$60,004,800	- 0 -	\$4,000,000	\$64,004,800
2. New Small Bus and Specialized Services	\$ 4,615,700			\$ 4,615,700
3. Intercity Passenger Services				
a) Intercity Bus Operations b) Intercity Bus Loan c) Terminal Development d) Transportation Information System e) Rail Passenger Services f) Water Passenger Services	\$ 1,005,000 770,200 1,635,000 375,000 3,000,000 600,000	\$1,840,700		\$ 1,005,000 2,610,900 1,635,000 375,000 3,000,000 600,000
Subtotal	\$ 7,385,200	\$1,840,700	- 0 -	\$ 9,225,900
4. Intercity Freight Services				
a) Rail Freight Operating b) Property Management c) Rail Freight Capital d) Port Assistance	\$ 1,035,300 1,900,000 1,580,500 100,000	\$ 575,000	\$ 505,000	\$ 1,035,300 1,900,000 2,660,500 100,000
Subtotal	\$ 4,615,800	\$ 575,000	\$ 505,000	\$ 5,695,800
5. Transportation Development Account				
a) Bus Capital b) Vanpooling c) Statewide Ridesharing d) Park and Ride e) SEMTA CATS f) Commuter Rail g) SEMTA LRT	\$ 2,943,500 125,000 200,000 300,000 1,500,000 900,000 1,000,000		\$ 800,000	\$ 3,743,500 125,000 200,000 300,000 1,500,000 900,000 1,000,000
<ul> <li>h) Demonstration and Development</li> <li>i) Technical Studies</li> <li>j) Rail Freight Capital</li> <li>k) Local Transit Assistance</li> </ul>	300,000 25,000 2,900,000 5,500,000	1-de 11-11-11-11-12-12-12-12-12-12-1	1,280,000 330,000	1,580,000 355,000 2,900,000 5,500,000
Subtotal	\$15,693,500	\$ - 0 -	\$2,410,000	\$ 18,103,500
Total Program Funds	\$92,315,000	\$2,415,700	\$6,915,000	\$101,645,700

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## FY 1984-85 CTF Program

## PART 2

## System Inventory and Performance Information

The inventory information presented in this part represents the various modes affected by the Comprehensive Transportation Fund. The intent of this section is to display the level of passenger and freight service provided to the State of Michigan by both private and public sector providers in FY 1983, the most recent completed fiscal year. It is organized by mode, consistent with the allocations established in Act 51 of 1951, as amended.

The CTF Progress Report for FY 1983, being developed as required by Act 51, will present an accounting of the FY 1983 program and of the progress made by the Department, its grant recipients, and its contractors in carrying out the FY 1983 program. Certain ridership information is repeated here for the reader's convenience.

## Local Transit Services

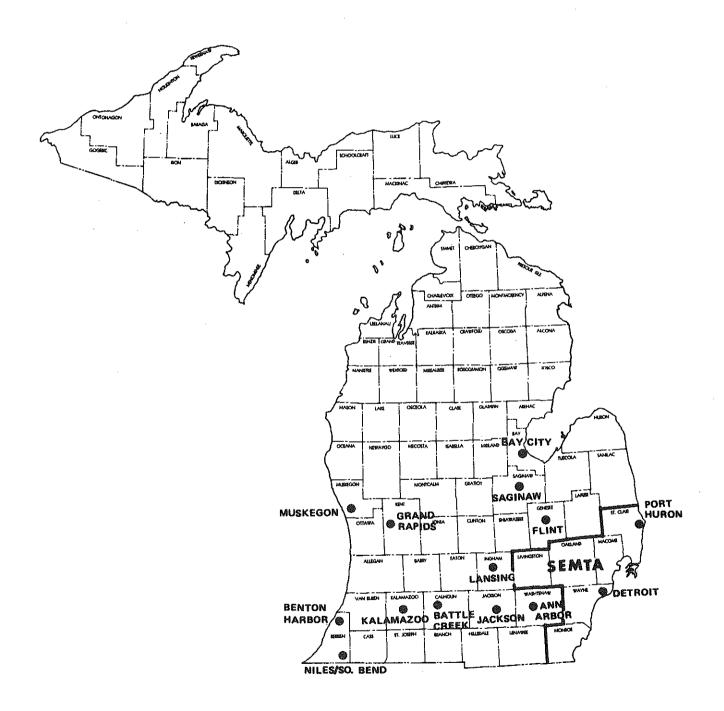
Forty-two local transit systems served Michigan communities in 1983 (see Figures CTF-1 and 2). These systems have been grouped into three classifications: urbanized, small urbanized, and nonurbanized. The classifications are based on population, population density, and the types of associated transit services.

- . Urbanized. Communities over one million population with a high level of fixed-route and commuter transit service. Supplemental services such as demand-response and downtown circulation systems are also provided. This category includes SEMTA, DDOT and the 10 small community metro systems of southeast Michigan.
- . <u>Small Urbanized</u>. Communities between 50,000 and one million population with a moderate level of fixed-route and commuter transit service. Supplemental services such as demand-response and downtown circulation systems may exist. There are 12 outstate urbanized areas included in this category.
- . Nonurbanized and Rural. Communities under 50,000 population with a low Tevel of fixed-route service, or none, and a moderate to high level of demand-response service. This classification also contains countywide services that have been in operation for longer than three years, including 9 that completed the third year period during FY-1983. There were 30 systems included in this category in FY 1983.

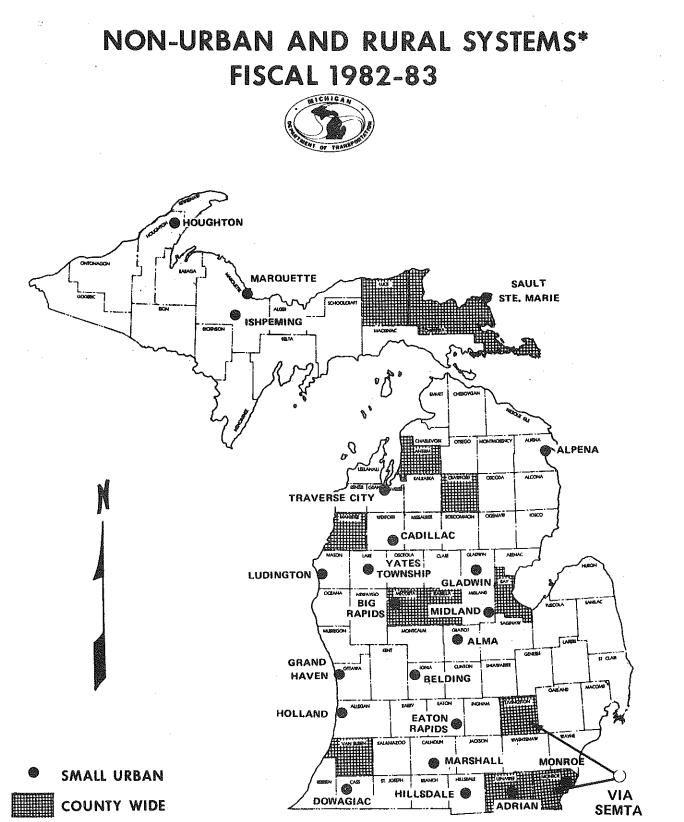
Operational and fleet inventory data on transit systems in each of these classifications are shown in Tables CTF-5 to CTF-7.

# URBANIZED AREA TRANSIT SYSTEMS

# AS OF 10-1-83



State and Federal (Section 5) Operating Assistance Recipients



\* State & Federal (Section 18) Operating Assistance Recipients

	Location	Operator	Start of State <u>Funding</u>	Service Area Pop.	Veh <u>Reg</u> ,	icles <u>Lift</u>	Passengers	Vehicle <u>Hours</u>	Vehicle Miles	Pass. per Wkdy.	<u>%SC</u>	<u>%HC</u>	Pass. per Hour	Pass. per <u>Mile</u>	Pass. per Pop.	Pass. % Change Last Year
	Ann Arbor	Trans. Auth.	2/73	220,769	21	43	3,036,563	140,076	1,944,433	10,917	8	2	21.7	1.56	13.75	+7
	Battle Creek	City	2/73	113,583	20	7	853,169	39,006	520,709	2,777	20	5	21.9	1.64	7.51	<del>~</del> 8
	*Bay County	Trans, Auth.	7/74	117,339	24	22	1,197,052	85,060	1,369,665	4,359	15	11	14.1	.87	10.20	<del>-</del> 3
	Benton Harbor	Trans. Auth.	9/74	56,828	12	5	118,465	20,727	257,968	468	42	1	5.7	.46	2.08	+11
	Flint	Trans. Auth.	2/73	413,761	64	16	3,899,484	140,037	1,959,472	13,661	16	0+	27.8	1.99	9.42	+5
	Grand Rapids	Trans. Auth.	2/73	486,949	76	38	5,214,655	161,293	3,713,418	18,731	10	6	32.3	1.40	10.71	-1
	*Jackson	Trans. Auth.	2/73	112,081	17	18	661,146	42,116	532,242	1,950	30	4	15.7	1.24	5.90	-19
	Kalamazoo	City	2/73	185,631	7	66	2,470,759	107,576	1,499,883	8,547	13	9	23.0	1,65	13.31	-20
ı	Lansing	Trans. Auth.	2/73	301,681	39	55	4,406,843	149,977	2,198,418	16,420	7	3	29.4	2.00	14.61	+7
ת	Muskegon	County	1/74	157,426	2	15	661,917	34,580	497,709	2,385			19.1	1.33	4.20	-0
1	Niles	Private	11/74	43,712	7	5	121,951	25,368	306,124	417	38	6	4.8	.40	2.79	+6
	Saginaw	Private	2/73	147,552	10	36	1,485,345	62,984	818,004	5,527	5	1	23,6	1.82	10.08	+4
,	**SEMTA	Trans. Auth.	2/73	4,417,383	<u>378</u>	<u>703</u>	73,842,424	2,940,749	44,419,562	213,026			25.1	1.66	16.72	<u>-19</u>
	Totals and Av	erages		6,774,695	677	1,029	97,969,773	3,949,549	60,037,607	299,185			24.8	1.63	14.46	-15

#### OPERATIONAL DATA - BUS TRANSIT PROGRAM - URBAN BUS SYSTEMS October 1982 Through September 1983

\*Bay County and Jackson County figures do not include New Service.

\*\*SEMTA figures includes DDOT and SEMTA nonurban portion.

Note: SC denotes senior citizen riders. HC denotes handicapper riders.

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Table CTF - 5

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# OPERATIONAL DATA - BUS TRANSIT PROGRAM - NONURBAN LOCAL BUS SYSTEMS October 1982 Through September 1983

Re	vie	ed.	31	~84
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Location	Operator	Start of <u>Service</u>	Service Area Pop.	Vehic <u>Reg.</u>	les <u>Lift</u>	Passengers	Vehicle Hours	Vehicle Miles	Pass. per Wkdy.	<u>%SC</u>	<u>%HC</u>	Pass. per Hour	Pass. per <u>Mile</u>	Pass. per Pop.	Pass. % Change from Last Year
Adrian	Private	4/7/76	20,382	6	1	96,720	13,330	169,545	378	43	11	7.3	.57	4.75	-11
Alma	City	6/30/75	23,249	4	2	56,164	6,851	80,118	208	31	5	8.2	.70	2.42	-14
Alpena	Private	7/29/74	19,805	3	3	82,676	12,355	158,465	283	41	26	6.7	.52	4.17	-7
Antrim Co.	County	1/17/77	12,612	5	4	58,127	12,968	317,011	231	26	15	4.5	.18	4.61	-19
Belding	City	4/14/75	5,121	1	2	36,275	4,335	49,479	134	29	1	8.4	.73	7.08	-5
Big Rapids	City	3/31/75	11,995	6	2	96,902	15,441	145,833	333	31	9	6.3	.66	8.08	-33
Cadillac	Trans. Auth.	12/9/74	14,225	4	4	78,698	17,654	267,365	280	35	23	4.5	.29	5.53	-32
Crawford Co.	Trans. Auth.	12/1/76	6,482	4	3	117,945	12,281	274,656	419	10	4	9.6	.43	18.20	+30
Dowagiac	City	6/16/75	17,574	0	3	30,604	4,568	45,917	120	37	6	6.7	.67	1.74	-3
Eaton Rapids	City	6/21/76	6,927	1	1	14,995	3,996	32,795	55	56	8	3.8	.46	2.16	-52
EUPTAB	Trans. Auth.	3/1/76	23,349	10	2	75,074	15,130	331,878	281	7	57	5.0	.23	3.22	-6
Gladwin	City	5/13/76	10,442	2	2	18,052	4,328	64,562	71	36	12	4.2	.28	1.73	+57
Grand Haven	City	8/18/75	35,766	7	5	114,048	16,047	258,768	418	31	15	7.1	.44	3.19	-9
Hillsdale	City	6/10/75	12,994	3	2	45,337	6,180	63,995	177	42	27	7.3	.71	3.49	-42
Holland	Private	2/4/74	27,137	8	2	109,037	18,026	245,869	377	41	14	6.0	.44	4.02	-14
Houghton	City	5/10/82	6,067	6	4	79,025	11,718	163,460	306	29	37	6.7	.48	13.03	+447
isabella Co.	Trans. Comm.	6/10/74	44,594	12	11	170,119	26,867	495,954	584	22	20	6.3	.34	3.81	-8
Ishpeming	Trans. Auth.	3/6/75	20,277	1	2	28,340	6,713	87,061	94	39	29	4.2	.33	1.40	-8
Lenawee Co.	Private	10/2/78	61,227	· 6	3	31,006	6,868	121,377	122	28	64	4.5	.26	.51	-31
S Ludington	Trans. Auth.	2/19/74	17,696	6	3	85,812	11,766	129,664	300	43	14	7.3	.66	4.85	-17
Manistee Co.	Nonprofit	3/3/75	31,278	12	(	118,246	19,165	404,789	408	30	14	6.2	.29	3.78	-11
Marquette	Trans. Auth.	2/18/74	27,588	8	2	147,167	12,370	135,953	N/A	9	9	11.9	1.08	5.33	+2
Marshall	City	11/21/74	7,478	5	2	59,104	5,694	81,137	214	27	1	10.4	.73	7.90	+3
Mecosta Co.	County	9/25/78	15,997	6	3	52,473	11,223	271,748	214	10	61	4.7	,19	3.28	-3
Midland	City	6/25/74	76,321	13	2	133,717	24,091	354,786	490	18	25	5.6	.38	1.75	-14
S. S. Marie	C.A. Agency	4/29/74	15,136	4	2	83,688	11,704	147,243	313	37	7	7.2	.57	5.53	-10
Traverse City	Private	5/20/74	31,203		3	80,685	17,238	225,223	297	45	24	4.7	.36	2.59	-2
Van Buren Co.	Nonprofit	1/1/79	56,173	5	3	51,286	8,822	183,348	201	28	50	5.8	.28	.91	<del>*</del> 6
Yates Twp.	Township	7/1/79	425	2	2	15,521	<u> </u>	68,647	61		<u>19</u>	2.5	.23	36,52	-4
TOTALS & AVERA	GES		659,520	153	87	2,166,843	343,865	5,376,646	7,369	30	18	6.3	.40	3.29	-8
SEMTA	Trans. Auth.	8/19/74	4,369,050	267	199	2,018,506	366,220	6,716,299	7,592	N/A	N/A	5.5	.30	.46	+47

Notes: Number of vehicles includes loaners. SC denotes senior citizen riders. HC denotes handicapper riders.

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## BUS INVENTORY

# Michigan Public Transit Agencies on Statutory Operating Assistance as of October 1, 1983

Line-Haul + Demand-Response = Peak

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## Peak + Reserve = Total Bus

able CTF

System	Total	Peak	Line-Haul	Demand- Response	Reserve/ Back-Up
Adrian	6	5		5	1
Alma	5	5	_	5 .	-
Alpena	6	5	_	5	1
Ann Arbor	64	44	34	10	20
Antrim Co.	10	6	-	6	4
Battle Creek	23	18	16	2	5
Bay Metro*	75	71	68	3	4
Belding	3	2		2	1
Benton Harbor	12	11	1	10	1
Big Rapids	8	· 6	-	6	2
Cadillac/Wexford Co.	12 (3 CI)	9	1	8	3
Crawford Co.	· 9 (2 CI)	7		· 7	2
Davison	5	3	-	3	2
Dowagiac	. 3	2		2	1
EUPTĂ Bus****	10	7	1	6	3
Flint	80	54	46	8	26
Gladwin	9 (4 CI)	8	<del>-</del> '	8	1
Grand Haven	12	7	2	5	5
Grand Rapids**	112	75	· 66	5	41
Hillsdale	5	4	-	4	1
Holland	. 10	7		7	3
Houghton	8	6	2	4	2
Ionia	3	2		2	1
Isabella Co.	22	14	5	9	8
Ishpeming	3	2	-	· 2 ·	1
Jackson	30	19	15	4	11
Kalamazoo	73	40	36	4	33
Lansing - CATA***	81	53	49	4	28

System	Total	Peak	Line-Haul	Demand- Response	Reserve/ Back-Up
Lenawee County	• 14 (5 CI)	10		10	4
Ludington	9	. 7	2	5	2
Manistee Co.	19	14	* 3	11	5
Marquette	15 (7 CI)	13	4	9	2
Marshall	4	3	· .	3	1
Mecosta Co.	9	7	1	6	2
Midland	15	12		12	3
Muskegon	17	12	11	. 1	5
Niles	10			8	2
Saginaw**	. 44	36	32	4	. 8
Sault Ste. Marie	5	4		3	ĩ
SEMTA (Total)	1,326	955	742	213	371
DDOT	749	475	475	-	274
SEMTA (line-haul)	312	267	267	-	45
SEMTA (small bus) Traverse City	265 10	213 8	2	213	52 2
Van Buren	7	5	<u>د</u>	5	2
Yates Twp.	Δ	3	_	3	ź1
iuces imp.	<del>**</del>	, <u>, , , , , , , , , , , , , , , , , , </u>			
TOTAL	2,207	1,589	1,140	· 445	622

\*Includes 14 from Kalamazoo, 4 from SEMTA, 9 from DDOT on loan.

\*\*Includes 3 from Kalamazoo on loan.

\*\*\*Includes 6 from Kalamazoo on loan.
\*\*\*\*Includes 3 from GRATA originally loaned from Kalamazoo.

Note: As of August 1, 1983, the City of Eaton Rapids was consolidated with Eaton County.

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## New Small Bus Service

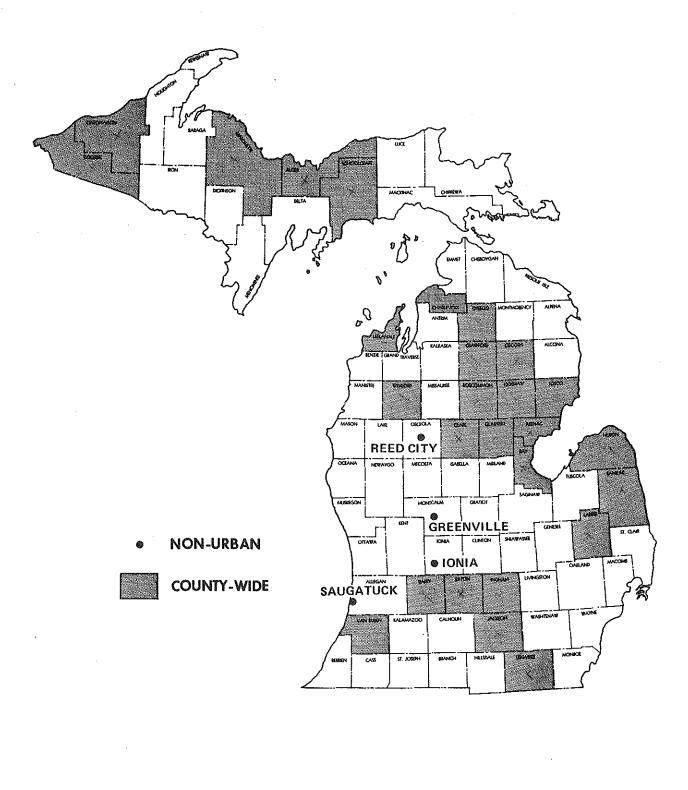
The new small bus program enables counties to establish an essential level of countywide demand-actuated transit service, or may support the formation of a subcounty public transit system where the county will not provide countywide service.

The predecessors to this program were the highly successful Dial-A-Ride and County Incentive programs. As of October 1, 1983, forty-three systems had been inaugurated in counties or small communities throughout the state under the auspices of one of these programs. The majority have decided to continue local funding for these public transportation services.

Figure CTF-3 shows the 30 systems that operated new small bus services in FY 1983. Tables CTF-8 and CTF-9 provide operational and fleet inventory data for these systems.



# NEW SMALL BUS SERVICES IN OPERATION DURING FISCAL YEAR 1983



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Figure CTF-3

# OPERATIONAL DATA - BUS TRANSIT PROGRAM - NEW SMALL BUS SYSTEMS October 1, 1982 Through September 30, 1983

Location	Operator	Start of <u>Service</u>	Service Area Pop.	Veh <u>Reg.</u>	icles <u>Lift</u>	Pass.	Vehicle <u>Hours</u>	Vehicle Miles	Pass. per Wkdy.	* <u>%SC</u>	** <u>%HC</u>	Pass. per Veh. Hour	Pass. per <u>Mile</u>	Pass. per Pop.	Pass. % Change Same Qtr. Last Year
Alger County	Nonprofit	1/11/82	8,568	4	3	41,954	12,899	265,519	161	27	3	3.3	.16	4.90	-
Arenac County	Nonprofit	2/9/81	11,149	2	2	23,740	7,672	141,558	95	20	52	3.1	.17	2.13	-17
Barry County	County	2/1/82	38,166	0	6	49,764	8,073	196,418	197	30	3	6.2	.25	1.30	-
Bay County	Trans. Auth.	12/28/81	40,000	0	4	46,046	7,839	125,175	183	16	3	5.9	.37	1.15	-
Charlevoix Cp.	County	8/1/80	16,541	4	4	74,433	14,378	258,839	289	32	27	5.2	.29	4.50	-6
Clare County'	Nonprofit	8/15/83	16,695	3	2	3,022	1,606	33,190	89	18	6	1.9	.09	.18	-
Crawford County	Trans, Auth.	9/1/80	6,482	2	0	26,462	3,990	109,992	103	19	0	6.6	.24	4.08	-1
Eaton County	Trans. Auth.	9/29/80	61,965	7	8	131,123	25,609	560,745	513	19	18	5.1	.23	2.12	+30
Gladwin County	City	6/22/81	3,029	2	2	43,748	12,950	193,687	172	19	33	3.4	.23	14.44	-22
Gogebic County	Nonprofit	11/3/81	20,676	2	4	44,088	10,104	120,742	171	49	10	4.4	.37	2.13	-
Greenville	City	12/14/81	7,493	1	2	44,263	6,399	61,463	160	36	3	6.9	.72	5.91	-
Huron/	Tanan Auth	9/28/81	60 26h	10	F	170 001	10 257	938,783	649	11	55	4.2	.18	2.46	+42
Sanilac Cos.	Trans. Auth.	8/25/81	69,264	13 3 ·	5 4	170,091	40,357 7,089		134	30		4.2	.16	.82	+42
lngham County Ionia	Private	6/2/80	42,067 6,361	2	4	34,643 40,814	7,009 5,156	216,096 58,783	134	43	15	7.9	.69	6.42	-19
_	City	10/15/79	24,905	3	Z 1.	40,814 63,144	11,844	313,312	237	28	21	5.3	.20	2.54	-11
losco County Jackson County	Nonprofit Trans. Auth.	12/15/80	31,193	3	4 2	51,599	16,414	275,179	198	22	63	3.1	.19	1.65	-29
Lapeer County	Nonprofit	11/29/83	51,361	2	0 h		11,347	229,727	132	27	12	2.6	.13	.56	-25
Leelanau County	County	11/16/81	10,872	2	2	29,490 38,793	9,472	271,532	152	7	5	4.1	.14	3.57	-
Lenawee County	Private	7/1/80	20,724	2 4	ン 1	27,051	5,438	105,892	106	40	54	5.0	.26	1.31	-32
Marquette County		3/22/82	16,821	5	3	77,497	18,963	405,474	NA <sup>2</sup>	8	9	4.1	.19	4.61	
Ogemaw County	County	12/8/80	11,903	1	2	34,710	6,578	105,686	139	27	18	5.3	.33	2.92	+2
<ul> <li>Ontonagon County</li> </ul>		7/16/81	10,548	3	2	30,549	9,549	173,211	121	30	26	3.2	.18	2.90	+22
Oscoda County	County	12/8/80	4,726	ž	2	23,662	6,441	98,120	94	37	-8	3.7	.24	5.01	+2
Otsego County	County	10/6/80	10,422	ŭ	ร้	53,155	13,971	295,056	202	14	32	3.8	.18	5.10	-24
Reed City	City	5/19/80	2,286	2	2	12,594	2,937	37,247	55	31	25	4.3	.34	5.51	-47
Roscommon County		10/27/80	9,892	4	5	89,998	12,937	449,932	353	28	3	7.0	.20	9.10	+6
Saugatuck	Township	5/8/80	3,780	1	2	30,053	4,686	72,242	94	33	8	6.4	.42	7.95	-13
Schoolcraft Co.		9/15/80	8,226	2	2	21,908	4 988	65,976	89	35	44	4.4	.33	2.66	-38
Van Buren County		9/15/80	56,173	6	2	8,689	1,716	34,707	193	22	28	5.1	.25	.16	-
Wexford County	Trans. Auth.	9/1/82	9,727	2	_2	24,947	5,628	85,154	89	35	24	4 4	.29	2.56	_
CI/U&R TOTALS &	AVERAGES		633,015	92	93	1,392,030	307,030	6,299,437	183	26	20	4.5	.22	2.20	+13

<sup>1</sup>Statistics are for less than one year only due to start-up date. <sup>2</sup>Not available. <sup>3</sup>Not Buren County terminated countywide service as of December 6, 1982. \*SC denotes senior citizen riders. \*\*HC denotes handicapper riders.

1308-3

Table CTF**-9** 

## NEW SMALL BUS SERVICES FLEET INVENTORY

## September 30, 1983

<u>County or System</u>	Demand-Response Vehicles
Alger County Arenac County Barry County	7 4
Darry county	6
Bay County Cadillac/Wexford	4
Charlevoix County	4
Clare	8 5 2
Crawford County	5
Eaton County	15
Gladwin County	
Gogebic County	4
Greenville	4 6 3
Huron/Sanilac	3 18
Ingham County	18
Ionia	
Iosco County	4 7
Jackson County	/
Lapeer	9 6 5 5 8 3 5 5 5 7
Leelanau County	0 5
Lenawee County	Б
Marquette County	СС С С С С
Ogemaw County	3
Ontonagon County	Б
Oscoda County	5 5
Otsego County	57
Reed City	
Roscommon County	4 Q
Saugatuck	3
Schoolcraft County	4 9 3 <u>4</u>
Total	177
Note: Van Rumon County discontinued countywide com	ice in December 1002

Note: Van Buren County discontinued countywide service in December 1982. 1308-3

## Specialized Services Program

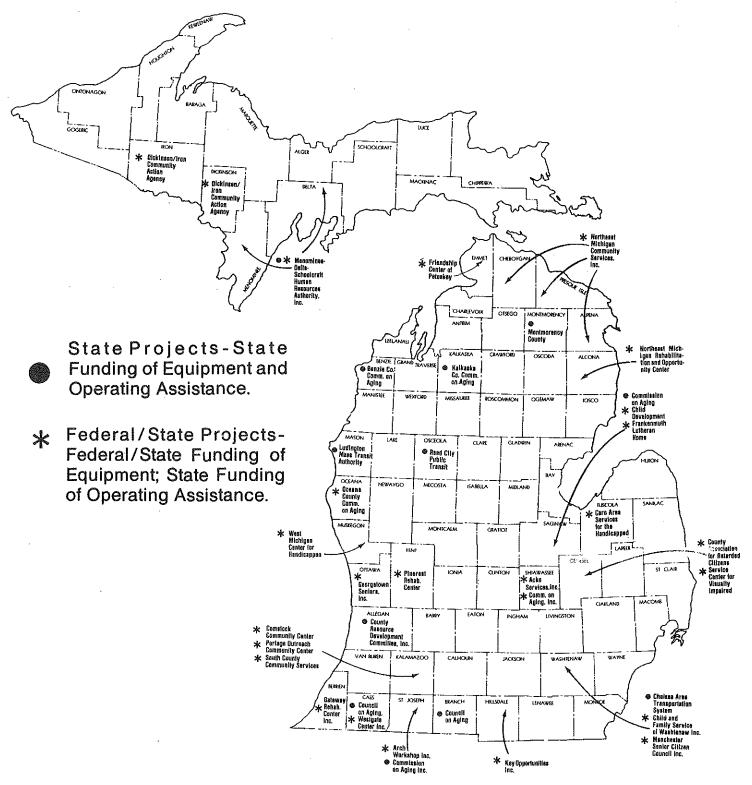
The Specialized Services Program (formerly called Essential Transportation Services) provides operating assistance, through county governments, to private non-profit organizations for the purpose of providing transportation services to elderly and handicapper citizens. Specialized services are provided in counties that do not have countywide transportation services.

As of September 30, 1983, there were 37 specialized services projects operating in 31 counties as shown on Figure CTF-4. Operational and fleet inventory data for these systems are provided in Tables CTF-10 and CTF-11. Reimbursement for these services is based on a rate per mile up to a maximum amount as determined by the Department. Act 51 of 1951, as amended, provides that not more than \$850,000 a fiscal year shall be distributed as operating grants for specialized services.

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## SPECIALIZED SERVICES SYSTEMS

FY 1983



## Note:

Services provided essentially for seniors and handicappers, but general public is served if capacity permits.

## OPERATIONAL DATA - BUS TRANSIT PROCRAM - ETS BUS SYSTEMS OCTOBER 1982 - SEPTEMBER 1983

	Location	Operator	Start of Serv.	Vehi Reg.	cles Lift	Pass.	Veh. <u>Hours</u>	Veh. <u>Miles</u>	<u>#SC</u>	#HS	#HC	<u>€SC</u>	<u>%HS</u>	<u>%HC</u>	Pass. per Hour	Pass. per Mile	Pass. % Change Last Yr.
			7.70	~	2	E2 606	1 770	37,275	51,244	1,043	· 0	98	2	0	19.17	1.41	+106
	Allegan Co.	County The day Bay Teason Coop	7~76 9-81	0	2	52,494 9,133	2,738 2,842	72,728	1,327	498	6,348	15	ŝ	7Ŏ	3.21	.13	+62
	Alpena/Cheboygan/	Thunder Bay Transp. Corp. NE Mich Rehabilitation	12-80	ŏ	3	9,437	1,638	41,214	,,527	÷50	9,437	ō	õ	100	5.76	.23	-10
	Presque sie cos.	Cheboygan COA	8-76	1	1	4,838	2,746	37,358	3,285	306	<b>,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	68	6	Ō	1.76	.13	+57
		Fresque Isle COA	7-76	ò	2	7,734	1,802	38,995	5,852	1,557	ō	76	20	-0	4.29	.20	+13
	Benzie Co.	COA	6-75	ŏ	1	2,635	1,645	27,715	1,116	342	1,177	4	13	45	1.60	.10	+2
	Berrien Co.	Gateway Rehabilitation	6-81	š	ż	42,920	6,285	175,116	1,076	232	41,564	0	1	97	6.83	.25	+257
	Branch Co.	COA	10-75	ō	1	5,706	1,980	18,561	5,490	108	108	96	2	2	2.88	.31	+9
	Village of Caro	Caro Area Services for Hdcp.	4-82	1	ż	4,623	1,734	32,128	539ز 2	71	803	55	2	17	2.67	.14	+60
	Cass Co.	Bestgate Center for Hdop.	6-76	0	1	7,040	874	26,674	0	0	7,040	0	0	100	8.05	.26	+150
	0000	CUA	9-75	0	1	2,728	1,696	26,493	2,662	96	· 0	98	2	0	1.87	.10	+31
	Delta/Menominee																
	Cus,	CAA	6-75	0	4	29,815	6,410	66,129	14,512	13,550	813	49	45	3	4.65	.45	÷ ÷
	Dickinson/Iron										_			··*	<b>a</b> 00	.37	+89
	Cos.	CAA	2-76	4	3	39,530	10,184	106,661	28,134	2,061	0	71 0	5	0	3.88 3.15	. 22	+113
	Cenesee Co.	Association for Retarded	3-81	3	3	37,331	11,839	169,503	0	8,822	28,509	-	24 0	76 95	1.86	.22	+75
		Service Center Vis. Impaired	3-81	0	2	3,217	1,730	14,086	57	0	3,072	2 0	2	88	4.83	1.20	N/A
	Hillsdale Co.	Key Opportunity	10-83	Q	1	2,475	512	2,070	0	39 514	2,166	32	4	57	3.98	.46	43
r	Kalamazoo Co.	Comstock Community Services	6-76	0	I	7,288	1,832	15,827	2,360 334	1,173	4,181 1,502	52	32	50	1.86	.15	+57
		Portage Community Center	11-81	0	1	3,613	1,946	23,961		3,469	1,302	45	35	14	17.83	.66	-6
		Vicksburg Community Services		1	,		556	15,109	4,504	3,465	7,058	43	1	56	5.29	.20	+196
	Kalkaska Co.	CCA	10-76 7-76	0	3	12,520 14,022	2,368 4,417	61,288	5,343 0	121	14,022	0	'n	100	3.17	17	+18
	Kent Co.	Pine Rest Rehabilitation	10-81	0	2	9,301	896	83,667 18,536	396	204	8,701	i,	2	.00	10.38	.50	-0-
	Mason Co.	Ludington MTA	6-76	1	2	681	873	12,425	671	0	<b>0</b> ,	99	ō	Ó	78	.05	+7
	Montmorency Co.	County W. Mich. Center for Hdop.	10-76	ò	4	5,883	826	12,341	2,278	1	4,412	25	ō	75	7.12	.48	- 4
	Muskegon Co.	COA	8-80	Ő	i	844	291	3,301	822	. 8	14	97	1	2	2.90	.26	+84
	-Oceana Co Alto outa Co.	Read City DAR1	6 79	ö	i	1,813	390	11,196	142	õ	1,295	8	0	71	4.65	.16	-54
	Utlawa Lo,	Georgetown Senfors	2-82	Ö	1	959	402	4,584	512	444	U	53	40,	0	2.39	.21	+100
	City of Petoskey	Friendship Center	8-76	0	2	17,482	2,831	45,025	14,699	1,679	1,104	84	10	6	6,18	.50	+36
	Saginaw Co.	COA	7-75	0	2	13,034	3,209	44,576	12,321	914	0	95	4	0	4.06	.29	+144
		Child Development Center	5-81	0	3	23,949	2,149	30,459	533	0	23,416	2	0	98	11.14	.83	+146
		Frankenmuth Lutheran Home	11-76	0	1	769	290	4,717	490	179	0	64	23	0	2.65	08	+372
	Shiawassee Co.	COA	10-76	1	1	8,913	1,187	11,839	3,193	5,692	28	36	64	D	7.51	.75	+6
		ACKCO Rehabilitation	7-76	1.	2	17,520	2,033	35,181	0	0	17,520	0	0	100	8.62	.50	+152
	St. Joseph Co.	COA & ARCH Workshop	1-77	1	3	23,996	3,436	94,914	7,230	20	16,746	30	0	70	6.98	.25	+1 N/A
	Washtenaw Co.	Chelsea Area Transp.	10-76	1	0	7,599	1,990	17,346	7,488	93	18	99	1	0	3.82	.44 .24	N/A N/A
		Child & Family Services	8-82	0	2	4,638	1,906	19,518	3,136	1,432	25	68	31	1	2.43		
		Manchester Senior Citizens	6-82	_1	_1	858	287	3,367	780	61	3	<u>91</u>	_7		2.99	.25	<u>N/A</u>
				10	co.	467 DED	00 770	1 661 000	106 526	NN 730	202 779	41	10	45	4.93	.31	+50
	Total			19	69	447,252	90 <b>,</b> 110	1,461,883	184,526	44,736	202,778	- 1	10	~			

\*Not in operation April through September.

NOTE: SC denotes Schior Citizens HS denotes Handicapped Seniors HC denotes Handicapped

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# VEHICLE INVENTORY FOR SPECIALIZED SERVICES September 1983

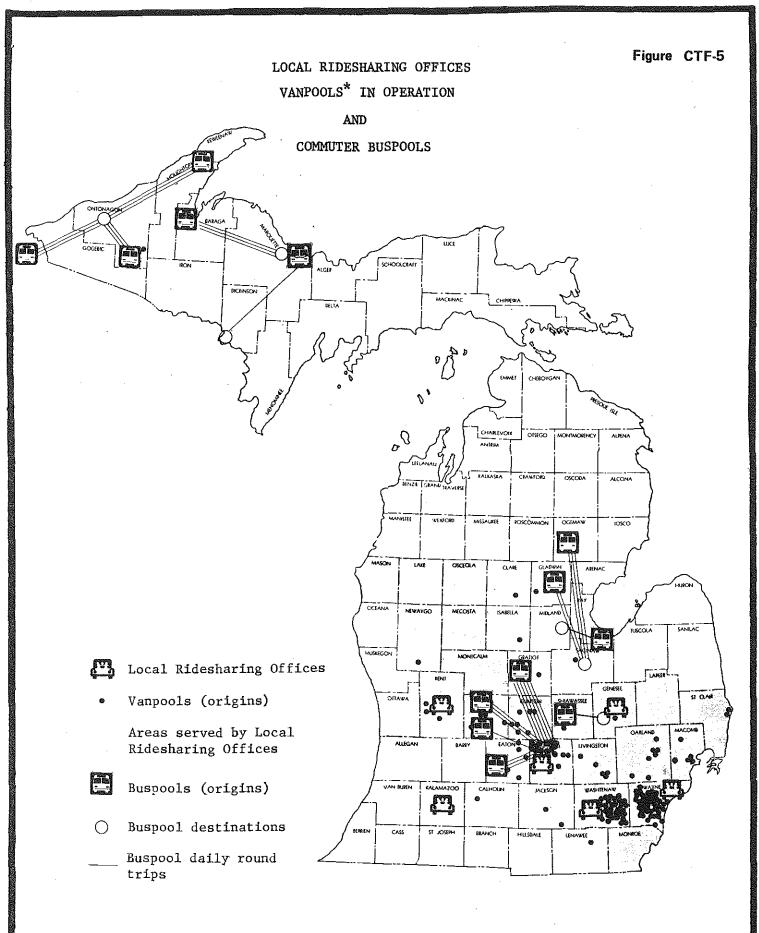
Location/Operator	Reg.	Lift	<u>Total</u>
Allegan Co. Alpena Co./Thunder Bay Alpena Co./NEMSCA Cheboygan Co./COA Presque Isle Co./COA Berrien Co./Gateway Rehab. Branch Co./COA Village of Caro/Caro Ser. for Hdp. Cass Co./Westgate Center Cass Co./Westgate Center Cass Co./COA Delta-Menominee Co./COA Dickinson-Iron/CAA Genesee Co./Assoc. of Ret. Genesee Co./Assoc. of Ret. Genesee Co./Ser. Ctr. Vis. Imp. Hillsdale Co./Key Opp. Kalamazoo Co./Comstock Kalamazoo Co./Portage Com. Ctr. Kalkaska Co./COA Kent Co./Pine Rest Mason Co./Ludington MTA Montmorency Co./County Muskegon Co./W. Mich. Ctr. for Hdp. Oceana Co./COA Osceola Co./Reed City Dart Ottawa Co./Georgetown Services City of Petoskey/Friendship Ctr. Saginaw Co./Child Dev. Ctr. Saginaw Co./CIM Shiawassee Co./COA Stawassee Co./COA Stawassee Co./COA Mashtenaw Co./Child & Family Ser. Washtenaw Co./Manchester Sen. Ctr.		2 5 3 1 2 1 3 1 2 1 1 4 3 3 2 1 1 1 1 1 3 3 2 2 1 1 1 1 1 2 2 3 1 1 2 3 0 2 1	25322161311476211123323111112231231234122
Total	20	71	91

## Ridesharing Programs

The Department of Transportation, as required by Public Act 557 of 1978, administers a state ridesharing program. This program is funded through the Transportation Development Account of the Comprehensive Transportation Fund. The ridesharing program budget is divided into two elements. The first element is a grant program for eligible governmental agencies to support local activities related to carpooling, vanpooling, buspooling and public transportation services. Offices currently being funded are Detroit, Lansing, Flint, Grand Rapids, Kalamazoo, and Ann Arbor.

The second element of this program represents the funding of the vanpool program called "MichiVan." The Department contracts with a private third party vanpool provider to provide fleet administration and vehicle acquisition for the program. The vanpool program is self supporting except for marketing and administrative costs. There are currently 110 vehicles providing service to approximately 1,400 commuters each day.

Figure CTF-5 shows the location of these services throughout the state.



\*MichiVan program

## Intercity Bus - Passenger Service

The intercity bus industry in Michigan provides a variety of transportation services to over 475 communities. There are approximately 97 authorized carriers providing regular route service, charters, buspools, and school transportation. Figure CTF-6 shows the present (March 1, 1983) intercity bus network throughout the State. The level of service is a direct function of the demand for that service (Table CTF-12.)

Intercity carriers transported more than 2,550,000 passengers in 1981 receiving \$39,795,148 in revenues and incurring \$37,312,623 in expenses. (No data is available for 1982 or 1983.) In addition, passengers spent an average of \$73.75 for food, accommodations and services. This resulted in an additional \$188 million injected into Michigan's economy. Of the 97 authorized carriers, nine major carriers account for nearly 90 percent of the passengers and revenue.

The intercity bus service is an industry in transition due to deregulation at the state and federal levels. The state's involvement in intercity bus activity includes the remaining regulation of the industry, providing operating assistance to maintain essential routes, providing funding for terminals, and purchasing vehicles through a bus loan program. There is concern that deregulation may leave many areas in the state without intercity passenger transportation options. The Needs Study Committee is currently studying various funding options to address this concern.

# INTERCITY BUS-REGULAR ROUTE Current Network March 1, 1983



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## OPERATING STATISTICS FOR MICHIGAN'S MAJOR INTERCITY CARRIERS

Characteristics	1978	1979	1980	1981	% Change 78-81
Regular Route Passenge	ers 1,619,248	1,846,775	1,909,372	1,683,098	3,9%
Charter/Special Pass.	2,874,820	2, 166, 236	1,672,004	867, 191	-69.8%
Total Passengers	4 494 068	4,013,011	3,581,376	2,550,289	-43.3%
Regular Route VMT	11,951,512	12,676,620	14,016,674	13,608,770	13.9%
Charter/Special VMT	6,782,098	8,863,935	9,240,815	7,869,714	16,0%
Total Passengers VMT	18,733,610	21,540,555	23, 257, 489	21,478,484	14.7%
Passengers/Bus Mile	.240	. 186	154	. 119	-50.4%
Number of Vehicles	Over 254	Over 276	Over 287	Over 235	**
Regular Route Revenues		\$14,272,827	\$17,914,169	\$19,950,788	61.7%
Average Fare	\$ 7.62	\$ 7.73	\$ 9,38	\$ 11.85	55.5%
Charter/Special Rev.	\$ 9,812,609	\$11,529,743	\$14,989,911	\$13,853,959	41.2%
Average Fare	\$ 3.41	\$ 5.32	\$ 8,97	\$ 15,98	368.6%
Express Revenues	\$ 2,548,841	\$ 3,209,625	\$ 3, 179, 311	\$ 3,501,857	37.4%
Other Revenues	\$ 787,982	\$ 1,157,021	\$ 1,309,325	\$ 2,488,544	215.8%
Total Revenues	\$25,483,770	\$30, 169, 216	\$37, 392, 716	\$39,795,148	56.2%
Revenues/Bus Mile	\$ 1.36	\$ 1.40	\$ 1.61	\$ 1.85	36.0%
Operational Expenses	\$22,865,269	\$25,859,811	\$32,502,221	\$33,366,917	45.9%
Depreciation	\$ 1,345,823	\$ 1,393,242	\$ 1,690,041	\$ 1,745,255	29.7%
Amortization	\$ 1,719	\$ 1,726	\$ 1,782	\$ 5,855	240.6%
Taxes/Licenses	\$ 1,538,703	\$ 1,566,145	\$ 2,084,468	\$ 2,141,868	39.2%
Operating Rents	\$ (53,416)	\$ (58,901)	\$ 174,933	\$ 52,728	×8.7%
Total Expenses	\$25,698,098	\$28,762,023	\$36,453,445	\$ 37, 312, 623	45.2%
Cost/Bus Mile	\$ 1.37	\$ 1.34	\$ 1.57	\$ 1.73	26.3%
Net Revenue	\$ (214,328)	\$ 1,407,193	\$ 939,271	\$ 2,482,625	1012.3%
(Profit)		• •	•		
Operating Ratio *	100.8	95.3	97.5	93.8	

Source: Annual reports filed by carriers with , MPSC.

\* Note: Operating ratio is the total costs divided by total revenues times 100. 6F-A22

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#### Intercity Rail Passenger Service

The rail passenger system serves 15 Michigan communities and includes 490 route miles - 422 in Michigan and 68 in Indiana, Illinois and Ohio. The out-of-state miles are necessary to provide connections to Chicago and Toledo. The most heavily traveled route is between Detroit and Chicago.

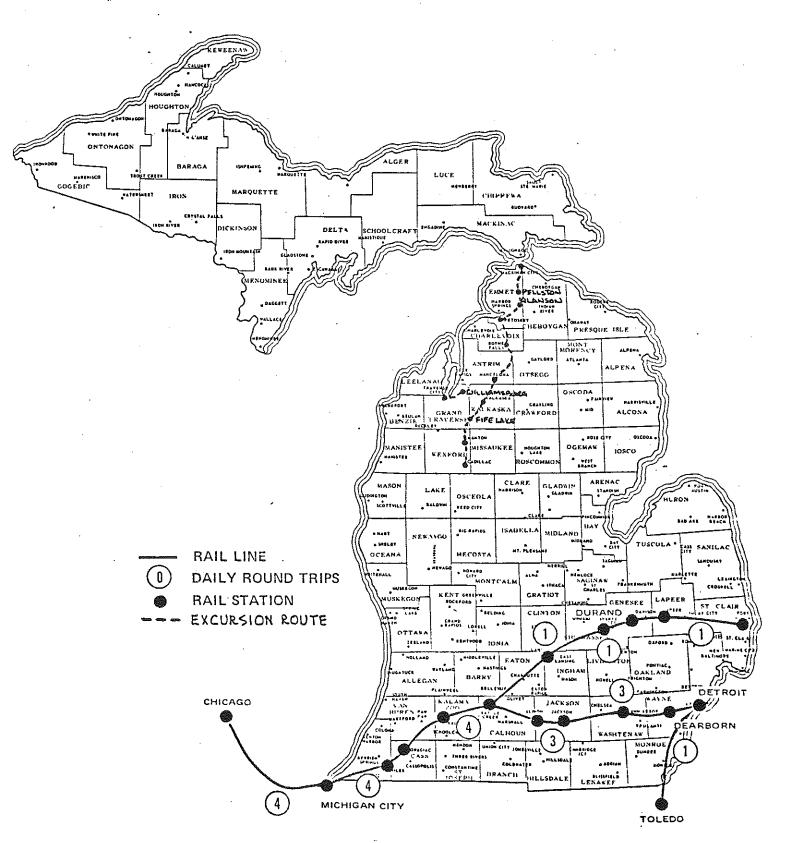
The level of rail passenger service is generally described in terms of daily round trips. The highest level of service, three daily round trips, is provided between Detroit and Chicago. One of these trains continues to Toledo, where connections are available to and from eastern points. All other intercity rail passenger routes in the state provide a single daily round trip. The Toronto-Port Huron to Chicago service also uses the Detroit to Chicago line from Battle Creek west, resulting in four trains daily between Battle Creek and Chicago.

Michigan's rail passenger system is shown on Figure CTF-7. Of the 490 total route miles, AMTRAK operates 143 route miles. The remainder is privately operated by the Grand Trunk Western Railroad and Conrail.

Amtrak's state-assisted "International Limited" passenger train connecting southern Michigan cities with Toronto and Chicago, introduced in October 1982, is an example of the success of this program. It operates daily, linking Chicago, Niles, Kalamazoo, Battle Creek, Lansing/East Lansing, Flint, Port Huron and Toronto. Ridership on the route has risen from 91,941 passengers in fiscal 1977-78 when the service operated only from Chicago-Port Huron to approximately 112,393 in FY 1983. Through direct train connections in Toronto, the route connects Michigan towns and cities into a 1,000-mile rail travel corridor to major U.S. and Canadian cities extending from Chicago to as far east as Ottawa, Montreal and Quebec City. Table CTF-13 provides performance data on this popular route. While emphasis on ridership is important, special attention has been placed at maximizing the revenue generation of these intercity trains in a manner to continually reduce the need for public operating assistance. Emphasis will continue on all intercity rail passenger routes to further improve both the operating and economic performance of these routes.

Table CTF-14 shows ridership on Michigan rail passenger corridors from 1974 to 1983 (calendar years).





#### Table CTF-13

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#### AMTRAK INTERCITY RAIL PASSENGER SERVICE

#### PERFORMANCE

The following performance statistics cover a five year performance period extending from Fiscal Year 1977/78 through Fiscal Year 1982/83. These figures apply specifically to the Port Huron-Flint-East Lansing-Battle Creek-Kalamazoo-Niles-Chicago route. The performance patterns of this particular route are similar in nature to other intercity rail routes serving Michigan communities.

	<u>FY</u>	1977/78	FY	1982/83	Change
Revenue	\$1,	159,316	\$2	,681,093	+131%
Expense	\$4,	360,323	\$4	,437,866	+1.8%
Revenue/Train Mile	\$	4.99	\$	11.55	+131%
Expense/Train Mile	\$	18.78	\$	19.12	+1.8%
Revenue/Expense Ratio		26.6%		60%	+126%
Daily Train Miles		636		636	NC
Number of Stations		10		10	NC
Route Miles		318		318	NC
Ridership		94,725		117,634	+24%

RAIL PASSENGER RIDERSHIP, 1974-1983

1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
8,026	43,354	38,456	33,472	40,358			·		
236,616	339,949	369,542	333,405	342,940	388,300	382,967	393,278	356,796	354,817
	58,952	65,114	82,473	87,770	96,573	86,609	55,385	<u>3/</u> 32,228	<u>4/</u> 28,981
23,090	85,953	89,277	89,895	94,725	108,586	111,121	112,977	99,332	<u>5/</u> 117,634
267,732	528,208	562,389	539,245	565,793	593,459	580,697	561,640	488,356	501,432
	8,026 236,616  23,090	8,026 43,354 236,616 339,949 58,952 23,090 85,953	8,026 43,354 38,456 236,616 339,949 369,542 58,952 65,114 23,090 85,953 89,277	8,026       43,354       38,456       33,472         236,616       339,949       369,542       333,405          58,952       65,114       82,473         23,090       85,953       89,277       89,895	8,026       43,354       38,456       33,472       40,358         236,616       339,949       369,542       333,405       342,940          58,952       65,114       82,473       87,770         23,090       85,953       89,277       89,895       94,725	8,026       43,354       38,456       33,472       40,358          236,616       339,949       369,542       333,405       342,940       388,300          58,952       65,114       82,473       87,770       96,573         23,090       85,953       89,277       89,895       94,725       108,586	8,026       43,354       38,456       33,472       40,358           236,616       339,949       369,542       333,405       342,940       388,300       382,967          58,952       65,114       82,473       87,770       96,573       86,609         23,090       85,953       89,277       89,895       94,725       108,586       111,121	8,026       43,354       38,456       33,472       40,358            236,616       339,949       369,542       333,405       342,940       388,300       382,967       393,278          58,952       65,114       82,473       87,770       96,573       86,609       55,385         23,090       85,953       89,277       89,895       94,725       108,586       111,121       112,977	$8,026$ $43,354$ $38,456$ $33,472$ $40,358$ $$ $$ $$ $$ $236,616$ $339,949$ $369,542$ $333,405$ $342,940$ $388,300$ $382,967$ $393,278$ $356,796$ $$ $58,952$ $65,114$ $82,473$ $87,770$ $96,573$ $86,609$ $55,385$ $\frac{3}{32},228$ $23,090$ $85,953$ $89,277$ $89,895$ $94,725$ $108,586$ $111,121$ $112,977$ $99,332$

Notes: 1/ 2/ 3/ 4/ 5/

Detroit-Chicago figures include the Detroit-Toledo figures. Service began January 20, 1975. Ridership figures included in Chicago-Detroit-Toledo beginning January 1, 1982.

Ann Arbor-Detroit (one train only), effective June 14, 1982. Toronto-Port Huron-Chicago service effective October 31, 1982.

Source: MDOT, Passenger Transportation Planning Section, Surface Systems Unit.

#### Marine Passenger Service

The marine passenger system consists of 20 ferry services operating in the waters surrounding the State of Michigan as shown in Figure CTF-8. Of these, only the services to Drummond, Neebish and Sugar Islands, owned and operated by the Eastern Upper Peninsula Transportation Authority (EUPTA), receive funding from the CTF. It is estimated that more than 500,000 passengers were carried on these island services in FY 1983.



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#### Rail Freight Service

Railroad freight service in Michigan is provided by approximately 5,200 route miles as shown on Figure CTF-9. This service is operated by seven major or Class I railroad companies and 18 short-lines and terminal companies. In 1980, the latest complete year for data, 1,237,000 carloads were generated from Michigan stations. This amounted to about 3.5 percent of the nation's rail traffic.

The rail mode has been contracting in plant size, both nationally and in Michigan. Since January 1961, 1,924 Michigan route miles have been abandoned and eight carferry routes have been discontinued. As of February, 1984, rail carriers in Michigan have identified to the Interstate Commerce Commission (ICC) 667 existing jeopardized route miles. Up to 200 additional miles are also considered candidates for ICC filings in the near future. Table CTF-15 summarizes the status of jeopardized segments as well as the route mileage that has been preserved through the state rail program (lines owned and operated by the state; also see Figure CTF-9).

The ability of the state's system of railways and waterways to deliver quality freight service plays a significant role in supporting economic activity. In order to insure an environment conducive to development, the state has expended over \$200 million on rail-related projects since the inception of the rail program in 1976.

There is currently a reduction in state and federal monies available for the continuation of rail lines. Rail program emphasis has therefore been targeted at marginal lines with potential for operational self-sufficiency. Emphasis has also been redirected to lines requiring capital improvements and exhibiting a willingness on the part of private and local interest to participate in a partnership approach for maintenance of essential rail service.

State program revenue limits, Michigan's economic recession, accelerated abandonment activity, state ownership of roughly 17 percent of the state's rail network, and the elimination of state operating assistance represent dramatic changes in the freight transportation environment. In recognition of these changes, the department took steps in FY 1984 to redirect the state's rail freight program. The new approach to state assistance recognizes the limited financial capability of the program and seeks to facilitate the participation of a broad range of financial and nonfinancial resources in achieving the program mission. This new approach emphasizes 1) facilitation of nonfinancial solutions to freight movement problems resulting from potential rail line abannments; 2) partnership with rail users, local governments, and other state agencies in the development of both nonfinancial and financial solutions to rail freight problems, and in service development/enhancement activity; 3) balancing the financial contributions of participants in freight projects with the project benefits to each; 4) relying upon capital as opposed to operating assistance; and 5) consideration of the use of other modes of freight transportation in solving freight movement problems.

# MICHIGAN'S RAILROAD NETWORK

Figure CTF-9

# Hoi ult Ste. Marie **EXISTING SYSTEM** SOLVENT CARRIER LINES-Not Threatened SOLVENT CARRIER LINES-Threatened STATE OWNED LINES-Operated With Subsidy ٨t STATE OWNED LINES-Operated Without Subsidy Muske Port Huron ttie Creel Benton

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#### SUMMARY OF PENDING AND POTENTIAL RAIL ABANDONMENTS

#### WITHIN MICHIGAN, AS OF FEBRUARY 1, 1984

#### Based upon ICC System Diagram Maps and Data from Michigan's Class II Railroads

#### CATEGORY MILEAGE Rail Water Total 393.17 - Lines which carrier anticipates will be subject 332.17 61.00 to an abandonment or discontinuance application within the next three years. - Lines under study and potentially subject to 81.45 81.45 0 abandonment application. - Lines for which an abandonment or discontinuance 192.74 192.75 0 application is currently pending before the Interstate Commerce Commission. - Lines operated under rail service continuation 933.53 8.70 942.23 contracts or owned by State of Michigan. 1,539.90 1,609.60 69.70

Table CTF - 1

1.

2.

3.

4.

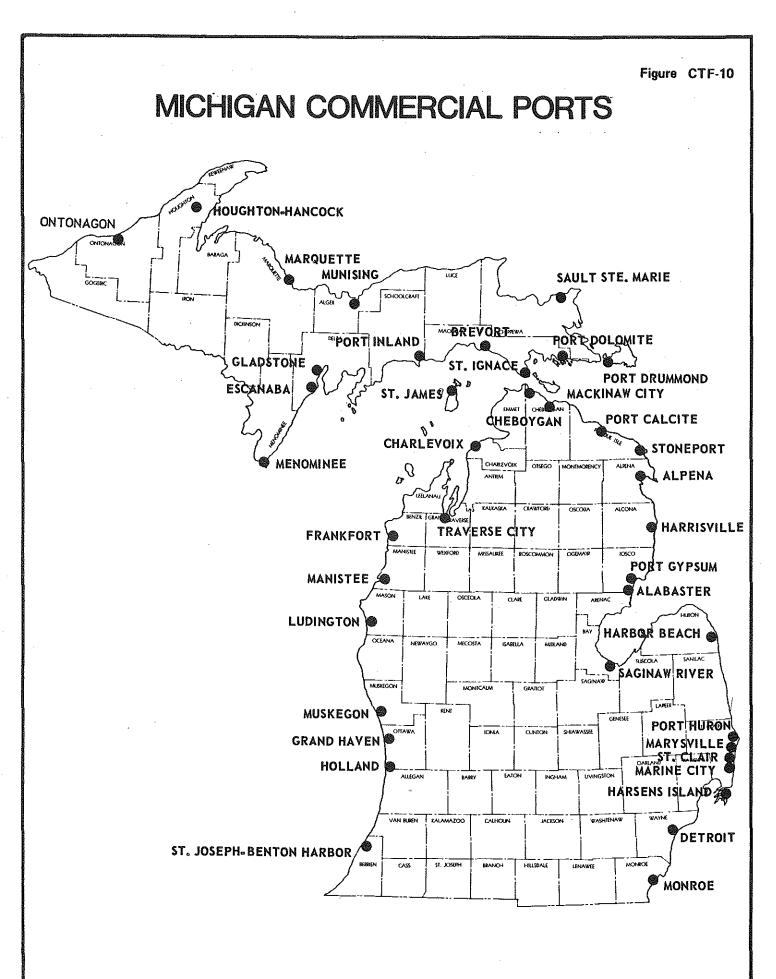
#### MARINE FREIGHT SYSTEM

There are 74 commercial ports in Michigan, of which 56 are regularly active in the movement of freight. These ports, identified in Figure CTF-10, handled 80 million tons of cargo in 1981. Five classifications are used to group Michigan ports by their function.

- 1. Overseas Ports
- 2. Great Lakes/St. Lawrence Seaway Ports with Public Channels
- 3. Great Lakes/St. Lawrence Seaway Ports without Public Channels
- 4. Ferry Service Ports
- 5. Other Ports (commercial fishing and occasional use)

Most ports in Michigan operate privately and have no public involvement in their management. The minimum level of public involvement is the existence of a development agency which could perform a support role in the development of terminals or services. Most ports have such an agency available, although few utilize them. Other types of management structures include port commissions or port authorities, either of which may have limited or broad powers related to port management or development. There currently are two active commercial port commissions and one port authority in Michigan.

CTF participation in the state's port system has been limited to matching local (city and county) budget allocations to port authorities, in accordance with P.A. 639 of 1978. One port authority has been created pursuant to this act, the Detroit/Wayne County Port Authority. CTF support to this authority has been provided since FY 1981. The authority provides a marketing resource to generate increased traffic through the port of Detroit.



#### FY 1984-85 CTF Program

#### Part 3

#### CTF Program Categories and Projects

This section provides a detailed description of each program category, the amount allocated, the purpose of the program, services provided, and eligible systems or carriers. In addition, there is a brief description of selected bond projects. MDOT inaugurated a \$64 million CTF bond program in January 1984. The program to be carried out with those bond proceeds will span a three-year period, beginning in FY 1984. Those portions of the \$64 million CTF bond program expected to be carried out during FY 1985 are summarized here to reflect the entire scope of the public transportation program.

The program presented herein is directed toward the goal of providing a balanced statewide network of public transportation services essential to the social and economic well being of the state.

#### LOCAL TRANSIT SERVICES

The purpose of local transit services is to provide the maximum possible level of public bus transportation to the general public, senior citizens, and handicappers of the state within the constraints of federal, state, and local funding. The programs directed toward this goal are:

 Statutory Operating Assistance for Local Transit:

\$60,004,800 CTF

The agencies eligible for assistance under this program are listed below. The urbanized area transit systems receive federal operating and capital assistance directly from the Urban Mass Transportation Administration (UMTA). The nonurbanized area transit systems receive federal operating assistance through the state. In FY 1983, the 13 urbanized systems (and nonurbanized areas of combined systems) had a ridership of 98,000,000; the 29 nonurbanized systems had a ridership of 2,167,000. The number of systems by category fluctuates as new small bus systems complete their first three years of operation and become included in the nonurbanized system category, as systems merge, or as systems discontinue service. In FY 1985 it is estimated there will be 13 urbanized and 47 nonurbanized transit systems in operations. Three urbanized systems also provide service in nonurbanized areas, as shown by the asterisk in the listing below:

#### Urbanized Area Transit Systems

Ann Arbor Battle Creek Bay County\*/\*\* Benton Harbor Flint Grand Rapids Jackson\* Kalamazoo Lansing

Grand Haven

Muskegon Niles Saginaw SEMTA\*

#### Nonurbanized Area Transit Systems

Adrian Alger\*\* Alma Alpena 1 Antrim County Barry County\*\* Belding Big Rapids Cadillac/Wexford\*\* Charlevoix County Crawford County Dowaqiac Eaton County EUPTA Gladwin Gogebic County\*\*

Greenville\*\* Hillsdale Holland Houghton Huron/Sanilac Ingham County Ionia Iosco County Isabella County Ishpeming Leelanau County\*\* Lenawee County Ludington Manistee County Marguette Marquette County\*\* Marshall Mecosta County Midland Ogemaw County Ontonagon County Oscoda County Otsego County Roscommon County Saugatuck Sault Ste. Marie Schoolcraft County Traverse City Van Buren County Yates Township

\*Combined urbanized and nonurbanized system. \*\*Former New Services Project (will complete third year during FY 1985).

#### FY 1984-85 CTF PROGRAM

The estimated state share of needs in this area, based on application requests and statutory ceilings of 50 percent of the nonfederal share for urban systems and 60 percent of the nonfederal share for nonurbanized systems, totals \$83.5 million. Because of a projected \$23.5 million gap between the \$60 million allocation and the needs, and the damaging reductions in service that would be necessary without additional funding, it is recommended that this program be supplemented by \$5.5 million from the Transportation Development Account. With this supplement, 79 percent of the estimated state share of needs will be met and a projected gap of \$18 million will remain unfunded.

2. Nonurbanized Bus Operating/Capital Assistance: \$ 4,000,000 UMTA

This program provides federal capital and/or operating assistance for public transportation in the nonurbanized areas of the state. The nonurbanized area transit systems and the nonurbanized portion of the combined transit systems listed above are eligible to receive these federal Section 18 funds. As noted above, these systems are also eligible for statutory operating assistance. The amount of state and federal funding is dependent upon the federal appropriation.

3. New Small Bus and Specialized Services: \$ 4,615,700

This program--through contracts with county governments--provides operating assistance for specialized services provided by private nonprofit organizations in counties that do not have countywide public transportation services, as well as operating and capital assistance to local areas to operate small vehicles for a three-year new service period. Many of the transportation disadvantaged, such as senior citizens and handicappers, look to specialized services as a primary means of transportation. Reimbursement for these services is based on a rate per mile for direct vehicle operating costs up to a maximum amount as determined by the department. Act 51 of 1951, as amended, provides that not more than \$850,000 a fiscal year shall be distributed as operating assistance grants for specialized services. The systems eligible for this assistance in FY 1985 include the following, as well as areas where new small bus service is planned but may not be implemented:

Allegan County Alpena/Cheboygan/Presque Isle Counties Benzie County Cass County Delta/Menominee Counties Dickinson County Hillsdale County Iron County Genesee County Kent County Mackinac County Montmorency County Muskegon County Oceana County Ottawa County City of Petoskey Saginaw County St. Joseph County Shiawassee County Washtenaw County

CTF

#### 1984-85 CTF PROGRAM

The new small bus element of this program has been successful in introducing public bus transportation for a three-year period that allows communities the opportunity to develop ridership and then decide whether to provide continued local funding. The vast majority have chosen to provide local funding either through a millage or through an appropriation. In FY 1985, it is estimated that 20 continuation systems, as listed below, will be in operation, with one additional system starting during the year. Funding for the purchase of vehicles for the additional system will be provided through the bus capital project of the TDA.

Alger County\*\* Barry County\*\* Bay County\*\* Berrien County\* Branch County\* Cadillac/Wexford\*\* Clare County City of Caro\* Gogebic County\*\* Greenville\*\* Grand Traverse Co. Ionia County\* Kalamazoo County\* Kalkaska County\* Keweenaw Bay Area Lapeer County Leelanau County\*\* Mason County\* Marquette County\*\* Osceola County\*

\*Planned for FY 1984. \*\*Will complete third year of operating during FY 1985.

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#### 1984-85 CTF PROGRAM

#### INTERCITY BUS TRANSPORTATION

Intercity bus transportation programs are directed toward combining public and private transportation services to provide responsive and essential transportation between cities statewide. These services are essential to provide basic intercity transportation for significant segments of our population and are important to the Michigan economy in the area of development and tourism. Intercity bus service will maintain individual mobility and transportation access to urban and rural communities.

#### 1. Intercity Bus Operating Assistance:

#### \$ 1,005,000 CTF

The purpose of this program is to support the continuation and development of intercity bus service statewide. Grants provide financial assistance for the operation and promotion of intercity bus service on a bid basis. Deregulation of the intercity bus industry has resulted in the reduction and elimination of bus passenger services to over 100 urban and rural communities, many of which have no other form of public transportation. This program, which can provide up to 1,565 miles of daily service, assures the citizens of Michigan access to a network of public transportation services through the development, preservation, restoration, and expansion of intercity bus passenger services to link Michigan's small urban and rural communities to major population and commercial centers. Special projects for colleges, worker/commuters, and other traffic generators may be necessary to stimulate industry and tourism.

All private carriers who operate under a certificate of authority as a motor carrier of passengers and meet program guidelines are eligible to apply for operating assistance. A minimal portion of the funding amount is provided for regulatory affairs in conjunction with the issuance of certificates of authority.

#### 2. Intercity Bus Equipment Loan Program:

\$ 770,200 CTF <u>1,840,700</u> Bus Loan Fund \$ 2,610,900

This program is complementary to the intercity bus operating assistance program. The program provides intercity buses to certified carriers through a state purchase, with the carrier repaying the state for the cost of the equipment plus a nominal interest charge, while having the buses in service to the public. The loans are repaid within six or nine years, including interest. It should be emphasized that this is a loan program. All equipment costs will be repaid to the Bus Loan Fund by the private carriers utilizing the buses. There is little financial loss risk because of the stable collateral value of the intercity bus equipment. Program requirements have resulted in many new regular-route services by private carriers at no state expense. The impact of deregulation has dramatically increased the present demand for new equipment. Buses are needed not only for expansion of new public transportation services, but also for replacement purposes. To date, 135 buses have been purchased for private carriers to operate regular routes. Over 61 percent of the total funding amount of these buses has been repaid to the state. It is vital that we assure expansion and replacement of vehicles under this program. At current estimated costs, the funding amount would permit the purchase of 12 additional buses.

All private carriers who operate regular routes under a certificate of authority to operate as a motor common carrier of passengers and meet program guidelines are eligible to apply under the Intercity Bus Loan Program.

#### 1984-85 CTF PROGRAM

#### PASSENGER TERMINAL FACILITIES

Development of safe, attractive, and efficient transportation facilities that provide access to all modes of transportation service in the affected communities is the goal of this program. The program will also develop a security program at major facilities and provide for continuation of the small facilities program.

1. Terminals:

\$ 1,635,000 CTF

The small urban and rural communities have a need for passenger facilities for the convenience of the traveling public. In many cases, reinstituting service in communities is dependent upon the availability of passenger facilities. This program will provide funding for facilities in the smaller communities throughout the state and for development of terminals in major travel corridors.

2. Transportation Information System: \$ 375,000 CTF

With deregulation of intercity bus and air carriers, services to cities may be deleted or added with minimal publication by carriers, leaving citizens unaware of service availability. The purpose of this program is to continue a two-year demonstration of an integrated transportation information system for interfacing intercity bus, air, rail, and transit services statewide. This transportation information system will give the citizens of and visitors to Michigan instant information on travel alternatives through one toll-free phone call. This service, the first of its kind in the nation, is designed to bring about better utilization of public transportation in the state.

#### RAIL PASSENGER TRANSPORTATION

#### \$ 3,000,000 CTF

Rail passenger service provides an alternative mode of travel for the general public. The program contains services under Section 403(b) of the Federal Rail Passenger Service Act in major travel corridors of the state. The International Limited route links eight Michigan cities directly with Chicago and Toronto and serves approximately 120,000 travelers each year. The Grand Rapids-Chicago service, to be introduced in FY 1984, will link western and southwestern lower Michigan with Chicago, where travelers can connect with other Amtrak services operating to and from points throughout Amtrak's nationwide rail system. This route is expected to serve approximately 60,000 travelers each year.

The state also expects to work with local communities and travel organizations to promote further development of tourism/excursion passenger rail movements that have shown an impressive growth in popularity in the past several years. In 1983 over fifty such train movements carried approximately 30,000 to 35,000 travelers on routes throughout Michigan.

New western Michigan service planned for FY 1984 requires signal and facility improvements to generate improved operating and economic performance. Continued passenger terminal development in Flint, East Lansing, and Detroit requires track, signal, and facility improvements. Improvements to grade crossings along passenger rail lines can increase both safety and operating performance levels.

#### WATER PASSENGER TRANSPORTATION

\$ 600,000 CTF

The state provides operating and capital support to designated water ferry operations linking Neebish, Sugar, and Drummond Islands with the Chippewa County mainland. These services are administered by the Eastern Upper Peninsula Transportation Authority.

Residents of the islands have no other means of transportation to the mainland. They are dependent upon these services for school transportation and access to fuel and other basic supplies. The services also promote tourism opportunities essential to Michigan's economy.

Capital improvements will be completed in phases. Phase I is currently in progress (FY 1984 funds). Phase II will continue with FY 1985 funds. Existing conditions of dock/port facilities constrain watercraft operations and further development of efficient, safe, reliable, and attractive services linking the islands with the mainland. These funds are also necessary for vessel maintenance and other support facilities.

#### INTERCITY FREIGHT TRANSPORTATION SERVCIES

The purpose of this program is to assist in the resolution of freight movement problems resulting from threatened loss of rail service and to improve the level of service capable of being provided by the state's rail freight system, thereby contributing to Michigan's economic development and revitalization.

1. Rail Freight Operations:

\$ 1,035,300 CTF

The purpose of this program is to evaluate and improve, where warranted, continuation of rail freight services necessary to meet rail user and community needs. State assistance is provided to facilitate continuation of rail freight services to over 85 rail users located throughout Michigan which tendered/received in excess of 13,000 carloads of freight in calendar 1983. In FY 1985 state operating assistance to eligible rail corridors is being reduced by 25 percent from the level provided to the same corridors in FY 1984. Greater operating efficiencies and additional revenue sources, through increased traffic generation and/or local commitments, may be necessary to retain the level of services previously provided. Eligible rail corridors for this assistance are as follows:

> Ann Arbor to Frankfort area Reed City to Petoskey and to Traverse City areas Hillsdale County area Lenawee County area Vassar area

2. Property Management and Miscellaneous Expenses: \$ 1,900,000 CTF

The department owns approximately 885 miles of railroad right-of-way and track structure, several parcels adjacent to the right-of-way, numerous pieces of rolling stock, other specialized pieces of rail and water equipment, and several buildings. Other rail property is leased. The department may deem additional leases or purchases to be necessary in FY 1985 in order to accomplish program objectives. Inherent in state ownership and lease of property is the responsibility associated with property management. The property management and miscellaneous expense element of the Rail Freight and Water Transportation Program addresses this responsibility.

Expenses eligible under this program element include obligations arising from leases and taxes, inventory and analysis, storage and disposition, maintenance and repair, and insurance and security of state-owned or leased rail freight and water equipment, rolling stock, land, and/or other fixed facilities.

Other eligible expenses include feasibility evaluations of specified freight services and, subject to the outcome of those evaluations, continuation of such services in the manner most conducive to efficient operations. Miscellaneous expenses such as those arising from audit resolution, arbitration awards, or purchase of equipment to facilitate property management functions are also eligible under this program element.

3.	Rail Freight Capital Assistance:	\$ 1,580,500	CTF
		575,000	Rail Loan Fund
		505,000	Federal
		\$2,660,500	

The purpose of the capital program is to provide a rail transportation track structure that will facilitate preservation of essential rail service. Department-owned rail corridors require an infusion of capital for improvements to track structure to ensure continued safe and efficient rail operation. Subprograms to be carried out with these funds include both bridge and grade crossing construction and rehabilitation, and track rehabilitation. Projects will be financed with contributions from affected local governments, state agencies, railroads, and/or rail users via negotiated loans, loan/grants, rail leases, or lease/purchase agreements.

Additional funding for the track rehabilitation subprogram is provided from the TDA.

#### 4. Port Assistance:

#### \$ 100,000 CTF

The purpose of this program is to provide state assistance to port authorities throughtout Michigan in accordance with PA 639 of 1978. Under this act, approved port authorities are responsible for promotion, development, and expansion of commerce through their respective ports. State assistance is available for eligible port authorities for operating budgets. Upon city, county and state approvals of the budget, 50 percent is to be funded by the state and 25 percent each from the city and county. The Detroit/Wayne County Port Authority is eligible for this state assistance.

#### TRANSPORTATION DEVELOPMENT ACCOUNT

\$15,693,500	CTF
2,410,000	Federal
\$18,103,500	

CTF UMTA

The purpose of the Transportation Development Account is to provide funding for projects that contribute to a balanced statewide network of public transportation services. Examples are construction, acquisition or improvement of physical plants or rolling stock, pioneering technological and systems improvements, encouraging economic development, and maintaining essential services to the citizens of Michigan. Activities eligible for funding under this program in FY 1985 include:

1.	Bus Capital:	\$	2,943,500
	,		800,000
		\$	3,743,500

This project is designed to meet capital needs of urbanized transit systems, nonurbanized transit systems, new small bus systems, and specialized services systems for senior and handicapper citizens. It is estimated that urban transit systems in Michigan will receive capital apportionments of \$24 million from UMTA's Section 9 program in FY 1985. To capture these funds, a local match of \$6 million would be required. Federal grants may also become available from UMTA's discretionary program (Section 3) for local transit systems, from UMTA's Section 18 program for nonurbanized systems, and from UMTA's Section 16(b)(2) program for vehicles for private nonprofit agencies that serve elderly and handicapper citizens. In addition, there is a need for replacement vehicles and equipment in nonurban systems and for new vehicles for an additional new small bus system. No federal funds are available for these latter purposes. Together, these capital needs total more than \$10 million. The modest amount devoted to this project in FY 1985 will meet only the most critical needs.

2. Vanpooling:

#### 125,000 CTF

\$

This project will fund the continuation of "MichiVan" vanpool services to qualified commuting groups of nine or more persons throughout the State of Michigan. Self-supporting except for marketing and administrative costs, MichiVan is one of the most cost-effective transportation services supported by this department. Vanpooling is an energy-efficient form of transportation that contributes to the relief of traffic congestion and air pollution. This project, which has accelerated the expansion of vanpooling in Michigan, will continue to be used to meet transportation demands where public transportation is unavailable, has been discontinued, or is unsuited to commuter travel needs. This project budget represents phase one of a proposed plan to gradually reduce and eliminate state funding.

#### 3. Statewide Ridesharing:

#### \$ 200,000 CTF

Ridesharing programs assist persons in finding alternative transportation services. Ridesharing for the work trip offers potential for reducing energy consumption, traffic congestion, and air pollution. Ridesharing is acknowledged by the U.S. Department of Transportation as being the most cost-effective means of meeting these objectives. This project will provide grants to local agencies for ridesharing organizational and promotional efforts, the development of selected statewide ridesharing marketing efforts, and the conduct of demonstration and development projects. Most of the costs are associated with the continued support of local ridesharing offices. Continuation grants will be based on evaluation of effectiveness. The proposed distribution is:

Detroit	\$ 90,000
Lansing	21,000
Flint	25,000
Grand Rapids	30,000
Kalamazoo	15,000
Ann Arbor	10,000
Jackson	9,000
	\$200,000

#### 4. Park-and-Ride:

#### \$ 300,000 CTF

Additional park-and-ride lots are required in the State of Michigan along major corridors to stimulate multimodal transit utilization. These lots also serve population and activity centers, thereby contributing to economic vitality and conservation of energy resources. Strategically located park-and-ride lots also relieve otherwise congested corridors and parking in central business districts. The anticipated locations for these lots are along the interstate highway corridors and at the fringes of transit service areas in cities and villages not served by interstate routes. These funds will be spent throughout the state and will be matched by federal funds from UMTA and the Federal Highway Administration depending on project eligibility.

5. SEMTA Central Automated Transit System: \$ 1,500,000 CTF

This represents the fifth increment for this multiyear project and will match an anticipated federal grant for FY 1985 of \$6 million. Continuity of funding is necessary in order to sustain the established construction schedule. Better known as the "people mover", this 2.9 mile loop in downtown Detroit is expected to begin operation in 1986. 6. Commuter Rail:

#### \$ 900,000 CTF

Initiation of commuter rail service between Ann Arbor and Detroit is an element of the Southeastern Michigan Regional Transit Consensus Plan approved by the SEMTA board in February 1984. This phase of this multiyear project will complete the segment between downtown Detroit (Joe Louis Parking Arena garage) and the Michigan Central Terminal.

7. SEMTA Light Rail Transit:

\$ 1,000,000 CTF

Light rail transit for both the Woodward and Gratiot corridors are elements of the Southeastern Michigan Regional Transit Consensus Plan approved by the SEMTA board in February 1984. This phase of this multiyear project will continue preliminary engineering and design work. Progress on this porject is predicated on receiving a federal grant for 80 percent of the costs.

8. Demonstration and Research:	\$ 300,000	CTF
	1,280,000	Federal
	\$ 1,580,000	

There is a continued need to improve the operating efficiencies of public transportation in the State of Michigan. The potential for savings in maintenance and operation costs becomes more important in view of reduced federal subsidies. Specific projects for the Demonstration and Research Program have not been determined. Technical needs of the transit authorities and the priorities suggested by UMTA will be considered in the selection of projects for this limited funding.

9. Technical Studies:

\$ 25,000	CTF
330,000	UMTA
\$ 355,000	

Activities eligible under this project include studies of operational and funding problems, preparation and dissemination of information such as operations manuals, planning new systems, and program management. Specific projects will be selected by the department's Technical Studies Committee after suggested priorities and funding guidance are received from UMTA. In-kind services will be used to the extent possible to take maximum advantage of federal funds.

10. Rail Freight Capital Assistance:

\$ 2,900,000 CTF

Capital funding is needed to supplement federal and other state funds for track, bridge, and crossing rehabilitation, to address pending rail abandonments, and to support efforts to entice rail-using corporations to locate and/or remain in Michigan.

#### FY 1984-85 CTF PROGRAM

It is expected that a number of major railroad segments will be abandoned in FY 1985. Under certain circumstances, department purchase and/or rehabilitation of abandoned segments will be appropriate given local economic conditions and the feasibility of operation without state subsidy. Where and when major corporations can be enticed to locate along a rail corridor and remain in Michigan, funds for freight facility improvements may be provided in cooperation with local units of government, economic development corporations, and industry. Projects will be financed with contributions from affected local governments, state agencies, railroads, and/or rail users via negotiated loans, loan/grants, rail leases, or lease/purchase agreements.

11. Supplemental Operating Assistance for Local Transit:

\$ 5,500,000 CTF

The program of state operating assistance to local transit agencies was designed to maintain essential services in localities throughout the state. However, the allocation for this purpose falls far short of meeting the needs, as discussed further on page . It is, therefore, recommended that \$5.5 million from TDA be used to supplement this allocation. With this supplement, 79 percent of the estimated state share of needs would be met.

5E-1471-2

#### CTF Bond Program

MDOT inaugurated a \$64 million CTF bond program in January 1984. This bond program, spanning a three-year period, will allow MDOT to meet the state's most critical capital needs for public transportation improvements. It is expected that approximately \$47 million of bond projects will be placed under contract during FY 1984. Another \$11 million is expected to be placed under contract during FY 1985. Because many of the projects in the bond program are funded through a federal-state partnership, the timing of specific projects is often dependent upon approval of federal grants. An example is UMTA capital grants to local transit systems for vehicles or improved facilities. For this reason, the amounts expected to be placed under contract during any one fiscal year are subject to change. This bond program is administered in conjunction with the CTF program previously outlined. The planned FY 1985 portion is summarized here to reflect the entire scope of the FY 1985 public transportation program.

1. Bus Transit

\$2,800,000 Bonds

These funds will be used to finance the purchase of transit vehicles and related equipment; the construction, rehabilitation, improving or equipping of transit facilities; or the purchase of inspection/ supervisory vehicles. The equipment and facilities will be used in various local bus and specialized services throughout the state. A high priority will be placed on using bond proceeds to obtain matching grants from UMTA. These capital grants are available on either an 80% federal/20% local or 75% federal/25% local basis.

2. Intercity Passenger Transportation

\$1,250,000 Bonds

MDOT will use bond proceeds to construct or rehabilitate one or more transportation terminals and to perform track rehabilitation and signaling work for improved intercity passenger train service. Intercity passenger train services are planned and provided in coopreation with Amtrak. A high priority will be placed on using bond proceeds for projects that also receive funding from Amtrak.

3. Rail Freight and Water Transportation

\$3,178,000 Bonds

This is part of MDOT's continuing program of track upgrading to provide a rail transportation track structure that will facilitate preservation of essential rail service. The improvements will be made on both state-owned and privately-owned tracks. Some of these improvements may be financed by means of loans or lease-purchase agreements.

4. Transit Systems Engineering

\$4,000,000 Bonds

This continues a multiyear project for light rail transit on the Woodward and Gratiot corridors that is part of the Southeastern Michigan Regional Transit Consensus Plan. This phase, dependent on an 80% federal/20% local UMTA grant, will continue preliminary engineering and design work.

# **HIGHWAY PROGRAM**

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#### INTRODUCTION

Public Act 51 of 1951 (as amended) establishes the current legal framework for developing and maintaining the state's total road and street network. It provides for the creation of the Michigan Transportation Fund, supported by taxes on motor vehicles and the fuel they use. It puts basic control of highway financing under the State Transportation Department, which is governed by a six member Commission.

Act 51 also assigns legal jurisdiction over various portions of the highway system to city, county, or state government and allocates available revenues to these agencies. Subsequent legislation amended the allocation formula, as noted in chapter one. Today, highways under the direct control of the Michigan Department of Transportation are marked either "I", "US", or "M". The Department is responsible for planning, designing, constructing, and maintaining these highways. The list of construction improvements for FY83 to the state network is included in this report.

The 1982 State Transportation Plan provides the context for establishing program priorities within its goals. The goals approved by the Transportation Commission emphasize maintaining the essential system, completing the interstate system and minimizing major widening improvements.

The FY85 Construction Program reflects these goals by including projects for the completion of I-696 and I-69 and also in the resurfacing of I-75 as well as many other projects.

The following program report contains a detailed discussion of Michigan's highway funding from federal and state sources for fiscal year 1984-85, an explanation of the Act 51 construction/maintenance proportions, a description of program categories and the projects in each category, and a comparison of the highway program to the condition of state trunkline routes.

#### Description of Routes Eligible for Program Funds

Projects included in this construction program are on routes eligible for Federal-Aid highway funds and are referred to as Federal-Aid Systems. Routes in the Federal Aid System are the major facilities, such as state trunklines, major county roads and major city streets. This report includes only state trunklines.

Three types of Federal-Aid Systems are discussed in this program. They are; Federal-Aid Interstate, Federal-Aid Primary, and Federal-Aid Secondary. In Michigan, Federal-Aid Urban Systems funds are allocated to urbanized areas and are not included in this report.

Federal-Aid Interstate roadways originally established for defense purposes, interconnect the major nationwide population and economic centers. Federal-Aid Primary roads carry high volumes of long distance traffic, have route continuity, and connect important state socio-economic centers. Federal-Aid Secondary roads have significance for travel between counties and carry substantial regional and inter-county traffic between populated places. There are 9,247 centerline miles of trunkline that carry 60.1 million vehicles miles of travel daily (VMT). A large percentage of the mileage (79%) is on Federal-Aid Primary routes, which also carry 63 percent of the VMT. The interstate routes comprise only 12 percent of the state mileage yet carry 24 percent of the VMT. Figures H3-4 show the distribution of miles and VMT among the eligible Federal-Aid routes.

#### All-Season Routes

Trunkline routes have a special designation for truck use based on their ability to carry loads. Four designations based on the road's characteristics are used to limit the size, weight, and load of the vehicles. They are:

- 1. All-season routes
- 2. All-season routes with restrictions
- 3. Rigid pavement (seasonal route)
- 4. Flexible pavement (seasonal route)

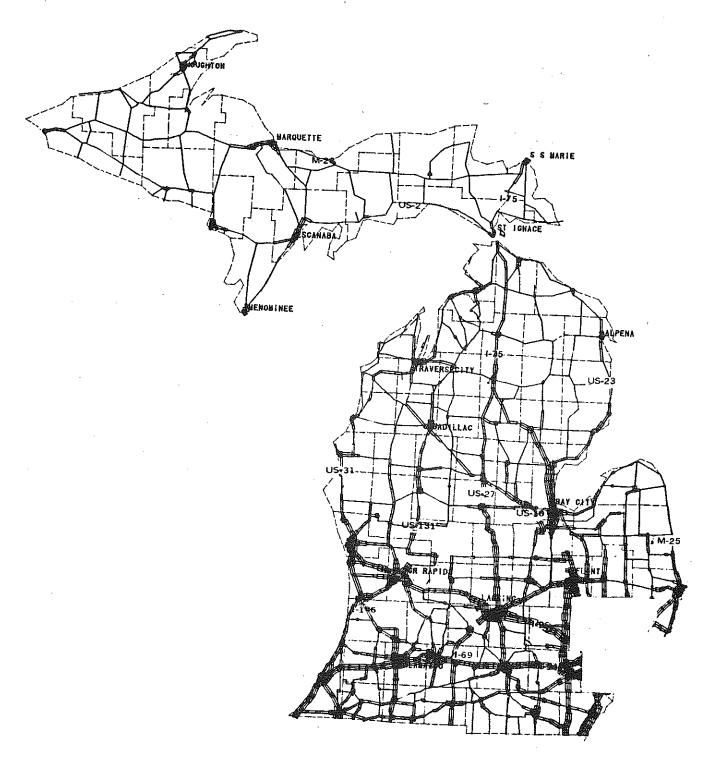
There are 6,331 miles of all-season truck routes. All-season truck routes are capable of handling the maximum legal load permissable in Michigan some all season routes have restrictions against double bottom trailers and loads greater than six feet wide. This mileage amounts to 68 percent of the total trunkline and 73 percent of the VMT. Narrow all-season truck routes (less than 22 feet) carry 4 percent of the VMT in the state on 830 miles. Figure H5 shows the designations for truck routes.

#### TRUNKLINE CONDITION

The trunkline condition is described by sufficiency ratings for surface, base and capacity. The sufficiency rating is an observed condition upon inspection, which is performed by MDOT every two years. Surface, base, and capacity ratings designated as "poor" correspond with the sufficiency's designation as "first priority". For a detailed explanation of the methods used to derive the ratings, refer to MDOT's Sufficiency Rating Computations Manual.

<u>Surface rating</u> represents the adequacy of the road surface. It is calculated from surface condition, pavement and shoulder characteristics, and data obtained from field inspection. This data, combined with deterioration factors and life expectancy, is used to generate the surface rating. The scores range from 1 to 15 with 1 being the worst and 15 the best. The 1981 sufficiency master data file was updated using the project planning file which reflects jobs let up to October, 1983.

# STATEWIDE AVERAGE DAILY TRAFFIC

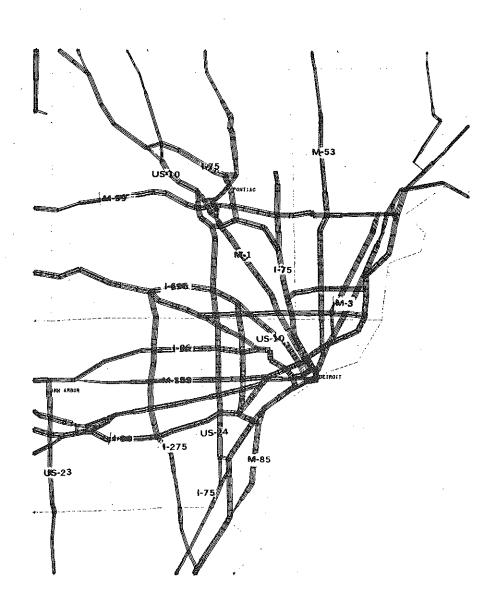


# AVERAGE DAILY TRAFFIC ( 1981 )

# VEHICLES

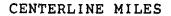
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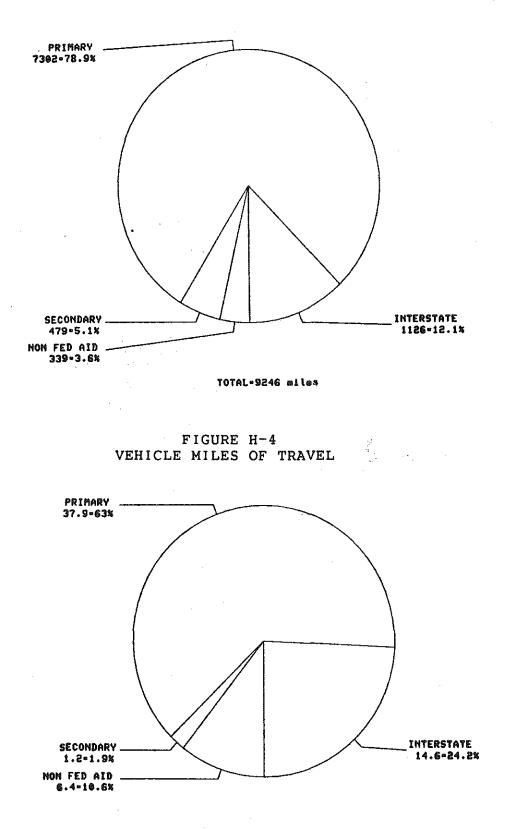
# METRO DETROIT AVERAGE DAILY TRAFFIC



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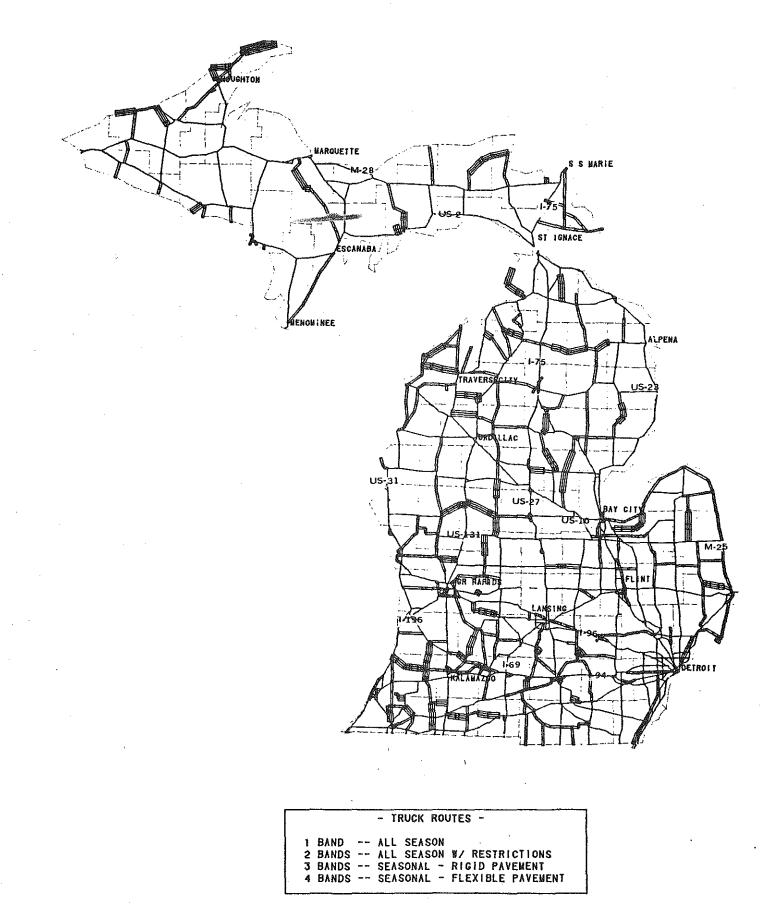




TOTAL-60.1 million

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#### SEASONAL TRUCK ROUTES



Thirty-five percent of the trunkline surface is rated good, but 45 percent is rated poor. Resurfacing and restoration projects which improve these routes can help eliminate the need for major reconstruction if implemented at an early stage. Figure H6 shows the locations of poor, intermediate and good rated routes.

<u>Base rating</u> represents the adequacy of the roadway base. It is calculated from soil and drainage data obtained from available records, field inspection, and district personnel. The scores range from 1 to 15 with 1 being the worst and 15 the best. The 1981 sufficiency master data file was updated using the project planning file which reflects jobs let up to October, 1983.

Over one-half of the mileage is rated as having a good base condition. This is due to the relative young age of the system, especially the interstate. Only 16 percent of the mileage is rated as poor. As a result, costly reconstruction projects may not be required on these routes for several years. Figure H7 shows the location of poor, intermediate, and good base rated routes.

<u>Capacity rating</u> represents the ability of a section of highway to carry existing traffic volumes. It is calculated using roadway characteristics, sight restriction, and commercial volume data obtained from available records and field inspection. Scores range from 1 to 40 with 1 being the worst and 40 the best. The 1981 sufficiency master data file was updated using the current project planning file which reflects jobs let up to October, 1983.

Eighty-one percent of the trunkline has have a capacity rating of "good". This is partially attributable to having constructed an efficient operating system through the years. Roads with poor, intermediate, and good capacity ratings are shown in Figure H8.

#### Structures

There are 3992 structures under the state's jurisdiction. The condition is rated by observation and classified by the following criteria:

<u>Good</u> rating indicates that the structure meets current design criteria and is functioning well. Over 90 percent of the structures under the state's jurisdiction are rated good.

<u>Structurally deficient</u> rating indicates that the basic structural components are in need of major repair or replacement. Structures so rated are safely usable, but some may require load restrictions. There are 27 structures with this rating.

<u>Functionally obsolete</u> structures indicates an inadequate aspect of the physical condition of the bridge, such as inadequate vertical and horizontal clearances. Also the approach alignment conditions are inadequate. There are 323 structures with this rating.

1982 SUFFICIENCY RATING



#### SURFACE SCORE

RATING	MILES	24
1 Band (Good)	3225	35
2 Bands (Intermediate)	1896	21
3 Bands (Poor)	4125	44
TOTAL	9246	100

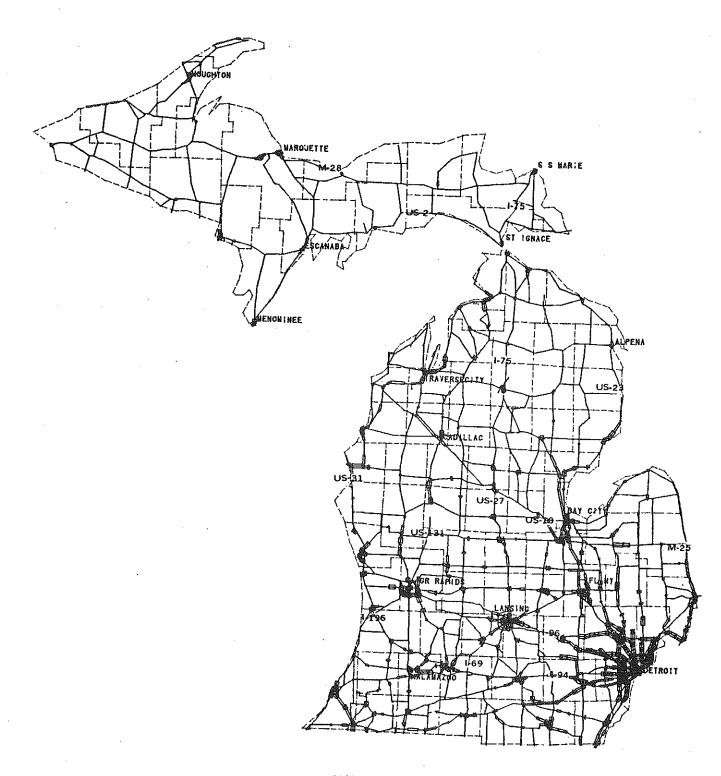




#### BASE SCORE

RATING	MILES	*
1 Band (Good)	4675	50
2 Bands (Intermediate)	3111	34
3 Bands (Poor)	1460	16
TOTAL	9246	100

## 1982 SUFFICIENCY RATING



### CAPACITY SCORE

RATING	MILES	Ř	
1 Band (Good) 2 Bands (Intermediate) 3 Bands (Poor)	7468 1072 706	80 12 8	
TOTAL	9246	100	

### FUNDING SOURCES

Improvements to the trunkline are funded primarily by federal and state revenues. Fuel taxes and vehicle use taxes generate these revenues. In order to assess the capability of improving conditions, an examination of available revenue is required. Then, with cost estimations of necessary projects, a comparison can be made to determine which projects can be started in the program year. The estimates for state apportioned funds for FY85 are shown in Figure H9.

### FEDERAL FUNDS

Highway Trust Funds are collected from taxes on motor fuel and other auto related purchases as directed by the Surface Transportation Assistance Act of 1982. Congress authorizes the Federal Aid Highway Programs and determines the amounts to be included in each. Distribution of these funds to the states is accomplished by apportionment or allocation. Apportionments are legislatively determined and are distributed by formula, whereas allocation is administratively distributed, often on a project by project basis. The following discussion describes each of the Federal Aid Highway Programs.

### Apportioned Funds

Current federal highway law states that each state must be notified of its apportionment at least 90 days prior to the apportionments becoming available. The apportionments are to be available at the beginning of the fiscal year, which is October 1. However, some years this has not happened, because Congress has not passed a Federal Aid Highway bill or approved an interstate cost estimate.

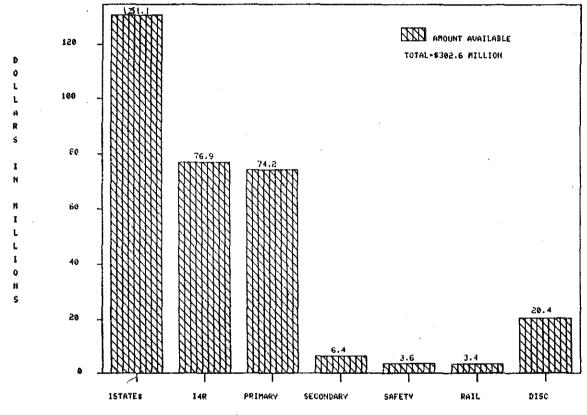
### Obligations

The Federal Aid Highway Program is based on a process of reimbursement by the Federal Highway Administration called obligation. The monies apportioned to the states through the various programs are dispersed through obligational authority. The obligational authority acts much like a line of credit to the state. The state begins projects with its own money, but is reimbursed for the federal share of the project cost as the work is being completed. However, each year a ceiling is imposed so that a state may not be reimbursed beyond a percentage of the project costs. Last year the ceiling was 94 percent.

### Obiligational Limitations

It is possible for obligations to match the apportionment, but more commonly, limitations are placed on apportioned sums. The Surface Transportation Assistance Act imposes such limitations annually on either the total program or by any of the sub programs. Once a state reaches its obligational limitation for the time period, funds may not be obligated although additional apportioned funds exist. Occasionally, exceptions are made when a change will result in a more equitable distribution of the overall limitation. The obligational limitation placed on FY 1984-85 apportioned funds is \$225 million, compared to a \$302 million apportionment for the state portion.

# FY 1984-85 ESTIMATED FEDERAL AID AVAILABLE BY FUNDING SOURCE (ESTIMATES 2-17-84)



Sincludes 858.5 oil carryover

FUNDING SOURCE

## Interstate-\$131.1 million

The apportionment formula for the interstate category is the ratio of the federal aid needed to complete the approved interstate system in each state to the total of such federal aid needed in all states. This money can only be used to construct the approved interstate routes. The amount of \$131.1 million includes a carryover of \$58.5 million.

### Interstate 4R-\$76.9 million

Interstate system projects such as resurfacing, restoration, rehabilitation and reconstruction are eligible for this program. Factors that are used to apportion these funds are system lane miles and system vehicle miles traveled on the interstate system.

Each apportionment of Interstate 4R funds is available for a total of four years. As with interstate construction funds, the amount unobligated at the end of four years is redistributed to the other states.  $\bar{\delta}\beta$ 

### Primary-\$74.2 million

Construction projects on the primary marked routes are eligible for primary funds. Factors that determine the apportionment to the states are the ratio of area type, rural population, rural delivery route mileage and urban population in places with 5,000 or more persons.

### Secondary-\$6.4 million

Construction projects on secondary marked routes receive apportionments through the secondary funding program. Factors that are used to determine the amount of apportionment are the ratio of area type, rural population and rural delivery route mileage and intercity mail route mileage. By federal law, at least 50 percent of these funds must be passed through to the counties. The Michigan Transportation Commission policy states that 66 percent of available secondard funds will be passed through to the counties.

### Urban System-\$29.0 million

Urban systems funds are available to urban areas with populations greater than 5,000 for improvements on roads within the urban area boundaries. Any governmental entity with jurisdiction over a road on the urban system can apply for the funds. Projects are prioritized, and funding decisions are made by urban systems task forces in each urban area. Very little of this money is used on state trunklines.

### 85% Minimum Allocation-\$47.4 million

Michigan has historically been a "donor state", receiving Federal Highway Trust Fund apportionments equivalent to 70-72 percent of contributions. The Surface Transportation Assistance Act of 1982 stipulated that no state would be apportioned less than 85 percent of its estimated contribution to the Trust Fund. Therefore, Michigan now receives an "85 percent Floor" -- theoretically the difference between our total program apportionment and our estimated contributions -- which can be used to augment any of the other federal funds. The above amount is an estimate, which is subject to change.

### Other Programs-\$24.2 million

The bridge replacement & rehabilitation, hazard elimination, and rail highway crossing programs are also apportioned by formula. These monies are divided between the department, counties and cities at the discretion of the department. As a rule, the department uses very little of the money, especially in the bridge relacement and program.

### Discretionary-\$20.4 million

The estimation of the amount of discretionary money available for the program year is based on historic patterns. At this point it represents the best estimate to use in forecasting available revenue. This money is available only when all interstate apportioned funds are used.

### STATE FUNDS

The Michigan Transportation Fund (MTF) is administered by MDOT and the state share finances the trunkline system and state non-motorized facilities. Two primary sources generate MTF revenue; motor fuel taxes and vehicle registration taxes. The estimated collection of these revenues by the major sources is shown in Figure H10.

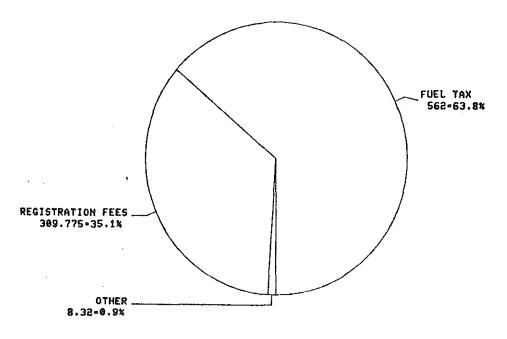
These taxes, plus taxes from liquified petroleum gas, licenses and permits, and interest on investments comprise the MTF. After deductions for administrative costs, Mackinac Bridge Authority, Critical Bridge Fund, State Waterways Fund, and 10 percent allocation to the Comprehensive Transportation Fund, the balance is distributed to the State Trunkline Fund (STF), county road commissions and cities and villages. The formulas for distribution are part of Act 51. For fiscal years 1984 & 1985, the formulas are shown in Figure H11.

### 100 Percent State Funded Projects

This money is available only after all Federal-Aid is matched from the state's distribution of the MTF. Projects in this category do not make use of federal funds; the state pays for the entire project. Since one of MDOT's goals is to maximize the use of federal assistance, this category is a small portion of the yearly program. These projects may be ineligible for federal aid, and can result from unforseen circumstances such as hazards caused by spring breakup, drainage problems, or local requests.

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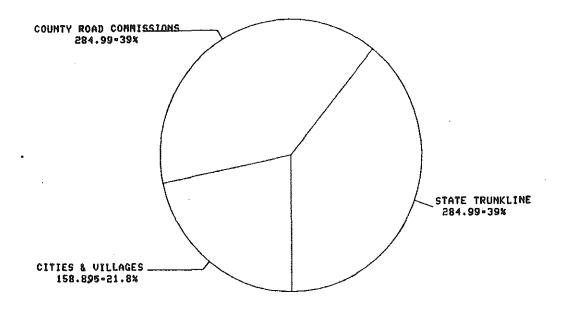
## FY 1984-85 MICHIGAN TRANSPORTATION FUND ESTIMATED REVENUE BY MAJOR SOURCE



TOTAL-\$880,095 THOUS



FY 1984-85 MICHIGAN TRANSPORTATION FUND ESTIMATED DISTRIBUTION AFTER DEDUCTIONS



TOTAL-\$728,875(thous)

### ACT 51 PROGRAM EXPENDITURE RESTRICTION

Sections 11(2) and 11(3) of Act 51 of the Public Acts of 1951, as amended, require a specific application of the annual state and federal revenues credited to the State Trunkline Fund. At least ninety percent of the fund, less certain amounts described below, is to be expended for maintenance of highways, roads, streets, and bridges. The restriction in programming funds is known as a 90/10 split. The requirement shall be waived to the extent that applying it would make the state ineligible for federal funds. Act 51 does not restrict interstate funds until the end of 1984, but the exemption is needed to continue to allow completion of the interstate system.

The Act defines maintenance to include several activities other than snow removal, drainage, sealing, patching and ordinary repairs associated with routine maintenance. These other activities include safety projects; the preservation, reconstruction, resurfacing, restoration, and rehabilitation of highways, roads, streets, and bridges; widening of less than a lane's width; adding short turning lanes, correcting substandard intersections; and, the activities of the Department's Bureau of Highways for implementing these projects.

Activities specifically excluded from maintenance are: (1) projects increasing capacity for routes serving through traffic; and (2) upgrading aggregate surface roads to a hard surface. (There are no trunkline roads with an aggregate surface.)

Certain expenditures from the State Trunkline Fund may be excluded before determining the 90 percent level. The following is a list of excluded expenditures for State funds.

- 1. Payments for bonds, notes, or other similar obligations prior to 1982
- State match for interstate construction (until September 30, 1984)
- Construction to service new manufacturing or industrial facilities
- 4. Capital outlays for purposes other than highways, roads, streets, and bridges
- 5. Departmental administrative cost of all bureaus, except the Bureau of Highways
- 6. Amounts for projects under contract before January 1, 1983
- Money loaned to county road commissions, cities and villages for the capital cost of maintenance projects on roads, streets and bridges

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## TABLE H1

## FISCAL YEAR 1984-85 HIGHWAY CONSTRUCTION

## PROGRAM - DETERMINATION OF 90/10 SPLIT FOR FEDERAL AID

	Apportionment	Estimated Obligation Authority
Estimated Federal Aid Deduct (Per Section 11(3) of Act 51):	\$276,700,000	\$225,000,000
<ul> <li>(a) Interstate</li> <li>(b) Industrial Development</li> <li>(c) Contracts Prior to 1/1/83</li> <li>Total</li> </ul>	72,600,000 -0- -0- 72,600,000	33,295,000 -0- N.A. 33,295,000
Balance of Federal Aid:	\$204,100,000	191,705,000
Additional Deduct:		
(a) Highway Planning & Research (b) Innovative Technology (c) Priority Primary Increase	4,726,000 1,000,000	4,726,000 1,000,000
in Federal Share Total	<u>4,700,000</u> \$ 10,426,000	4,700,000
Balance:	193,674,000	181,279,000
90 Percent of Balance:	\$174,306,000	\$163,151,000

The federal portion of the construction program ("A" list) equals \$166,674,000.

## TABLE H2

### FISCAL YEAR 1984-85 HIGHWAY CONSTRUCTION

### PROGRAM - DETERMINATION OF 90/10 SPLIT FOR STATE TRUNKLINE FUND

Estimated State Trunkline Fund: Deduct (Per Section 11(2) of Act 51): (a) Debt Retirement (b) Interstate Match (c) Industrial Development Routes (d) Capital Outlay (e) Operating Expense (f) Contracts Prior to 1/1/83		\$284,990,400 34,150,800 3,627,000 -0- 10,500,000 40,732,000 -0-
	Total	\$ 89,010,300
Balance of State Trunkline Fund:		195,980,100
90 percent:		176,382,090
Maintenance as Defined by Section 11(6) *1984-85 Highway Program Maintenance Budget Bureau of Highways Administration (75% X 40,781,000)	in Act 51:	30,500,000 142,790,900 36,586,000 \$209,876,900

\* Includes Preliminary Engineering, Construction Engineering and Right-of-Way

The Department must spend at least \$176,382,090 on maintenance. The Department has budgeted \$209,876,900 on maintenance.

The list of excluded expenditures for federal funds differs slightly:

- 1. Interstate construction funds
- 2. Construction to serve industrial development routes
- 3. Federal contracts dated prior to 1/1/83
- 4. Highway Planning and Research Funds
- 5. Additional federal share of Priority Primary Routes and federal funds spent on innovative technology.

Tables H1 and H2 display the calculation of the 90/10 split for the 1984-85 program based on estimations of the Federal Aid and State Trunkline Fund for 1984-85, including the deductions mentioned above. To the extent that state or federal revenues change, these numbers will change. The 90/10 calculation for federal aid was calculated for a program based on the state's obligational authority as well as using the full federal apportionment.

The Department is in compliance with the 90/10 requirement for federal and state funds.

### PRIORITY PROJECT LISTS

Two construction project lists are being used to program 1984-1985 highway improvements. The use of two lists provides a mechanism for developing program priorities when the state's obligational authority does not meet its apportionment. The two lists are referred to as the "A" list and "B" list.

The A list contains priority projects that can be built with the current estimated obligational authority. These projects are ready for construction and are the most likely to be let in fiscal year 1985.

The B list consists of active projects of a lesser priority than the A list projects. However, they can be let if additional obligational authority is released to meet the state's apportionment. Additionally, a B list project may be let if an A list project is delayed.

Programming with two lists in this manner allows the state to be prepared to let projects when additional aid becomes available.

### PROGRAM CATEGORIES

The highway construction programs presented here list the projects for Fiscal Year 1985. Both the "A" list and "B" list are included. The

projects are grouped by program category and described relative to the project location, length, type of work and cost.

Program categories are used to place projects into groups that are consistent with the Federal Highway Administration capital outlay and maintenance expenditures categories. They also describe, in broad terms, the type of work. The categories are listed and described below.

All bridges are contained in two categories: BRIDGE REHABILITATION and BRIDGE REPLACEMENT. Deck overlay and other repair work that does not replace the bridge or any part of its structure is included in bridge rehabilitation. Bridge replacement includes actual replacement of the bridge or any part of its structure.

ENVIRONMENTALLY RELATED projects are those that improve the environment around the highway such as landscaping and sound barriers.

MAJOR WIDENING projects include construction that adds one lane or more to the roadway. Minor widening includes projects that require less than one lane. Many of the widening projects also require resurfacing as part of the total project.

NEW ROUTES are entirely new sections of roadway and the associated improvements necessary such as landscaping or sewer construction.

RECONSTRUCTION projects are major construction improvements that upgrade the facility. These also include railroad reconstruction projects that upgrade the highway/railroad crossing. A typical railroad reconstruction project includes the approach plus the crossing reconstruction.

RELOCATION is self explanatory, but where a major facility is relocated, the necessary improvements associated with it are also relocated.

RESTORATION and REHABILITATION projects are basically replacement-inkind. Facilities such as buildings can be included in this category. Pavement recycling may be used for highway projects.

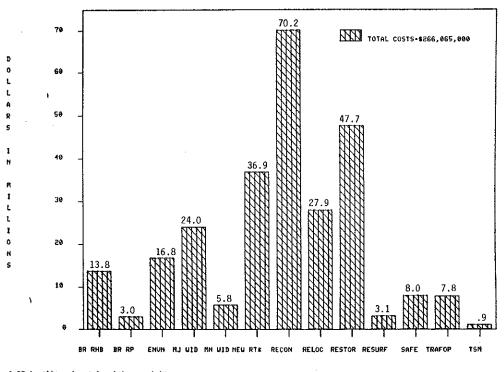
Any projects whose primary goal is replacement of the existing surface are included in the RESURFACING program category.

Lighting projects and pavement marking are examples of SAFETY projects, as are intersection improvements, turn flares and potentially hazardous locations. Projects in this category serve to improve the safety of the system.

In the current program, the TRAFFIC OPERATIONS category consists soley of electronic surveillance systems. TRANSPORTATION SYSTEM MANAGEMENT (TSM) projects include such projects as left turn lanes and ramp meters. The distribution of estimated project costs according to program category for the A list and B list are shown in Figures H12 and H13.

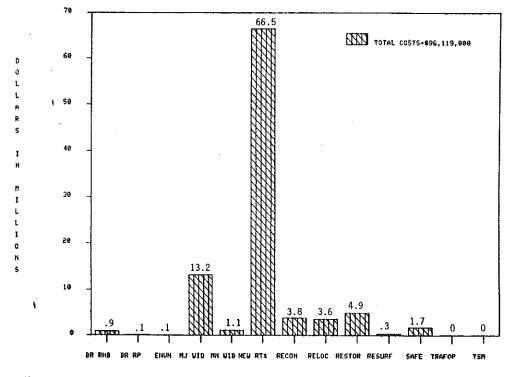
Figures H14 and H15 show the location of both A and B list projects statewide and for the metro Detroit area. The red bands are B list projects.

## A LIST PROGRAM CATEGORY DISTRIBUTION



<sup>\$ 33.1</sup> million for interstate completion

## B LIST PROGRAM CATEGORY DISTRIBUTION



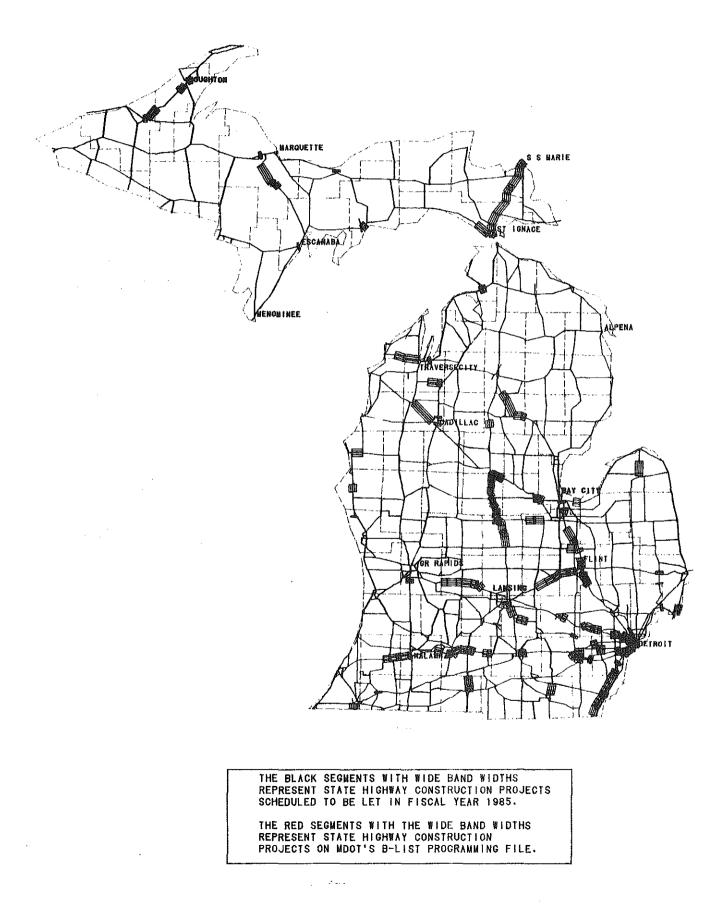
SAll projects are for interstate completion

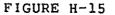
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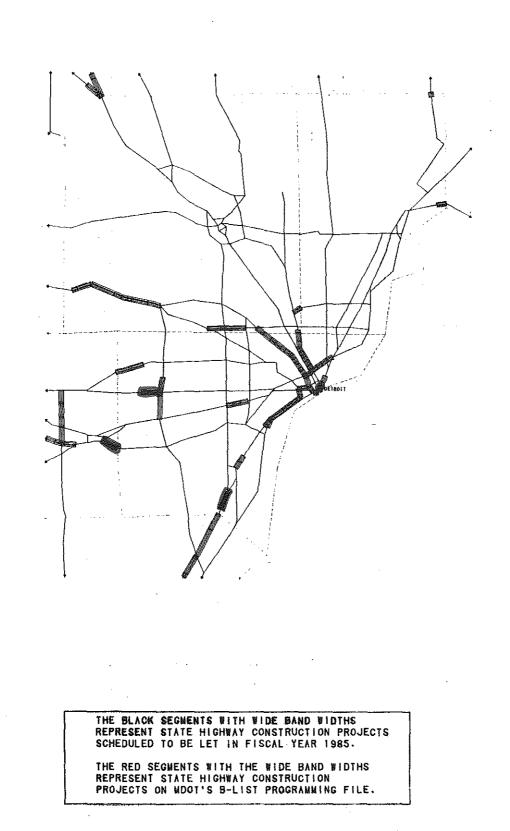
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### A & B LIST CONSTRUCTION PROJECTS





### A & B LIST CONSTRUCTION PROJECTS METRO DETROIT



Program Project listing -- FY85A 3/19/84 04/25/84

CATEGORY: BRIDGE REHABILITATION

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
115.12	BRIDGE #1 OVER THE ST. JOSEPH RIVER	PINS AND HANGERS	BERRIEN	0.0	150
USTOFR	BRIDGE #1 OVER THE ST. JOSEPH RIVER STRUCTURE #1 OVER US27 NORTH BOUND	CONCRETE OVERLAY	CLARE	0.0	76
US10	STRUCTURE #1,#28#3 OVER US27 NORTH BOUND	RAILING REPLACEMENT	CLARE	0.0	78
US27	STRUCTURE #1 UNDER MILITARY ROAD	DECK OVERLAY	CRAWFORD	0.0	50
175NB	STRUCTURE #5 OVER COOK ROAD	DECK OVERLAY	GENESEE	0.0	95
	PREPAR AL OVER THE TITLENUMCEEF DIVER	DECK DEDLACEMENT	CLADWIN	0.0	170
US127	STRUCTURE #1,#78#9 AT M36	DECK OVERLAY	INGHAM	ō.0	172
US131	STRUCTURE #2 UNDER TOART WEST OF KALAMA700	DECK OVERLAY	KALAMAZOO	0.0	140
194	POAD #1 OVER CONPACT RATI ROAD & 4 OTHERS	DECK OVERLAY	KALAMAZOO	0.0	361
M26	BRIDGE #1 OVER EAGLE CREEK & BRIDGES #28#3	STRUCTURE RECONSTRUCTION	KEEWENAW	0.0	730
US131	STRUCTURE #4 UNDER GRTH STREET	WIDENING AND OVERLAY	KENT	0.0	552
US2	BRIDGE #1 OVER MILLECOOLIN RIVER	OVERLAY AND RATIING	MACKINAC	0.0	42
052 M55	BRIDGE #1 OVER MARISTEE RIVER	DECK REPLACEMENT	MANISTEE		950
M28	BRIDGE #1 OVER MILLECOQUIN RIVER BRIDGE #1 OVER MANISTEE RIVER ROAD #1 OVER LS&I RAILROAD BRIDGE #1 OVER INDIAN CREEK & 2 OTHERS RDAD #3 OVER CONRAIL RAILROAD & RAISIN RIV	STRUCTURE REMOVAL	MARQUETTE	0.0	205
M125 TR	BRIDGE #1 OVER INDIAN CREEK & 2 OTHERS	OVERLAY AND RATIINGS	MONROE	0.0	213
175	ROAD #3 DVER CONRALL RALLEDAD & RAISIN RIV	PINS AND HANGERS	MONROE	0.0	250
175	STRUCTURE #13 AT CROCKS ROAD TROY	BRIDGE WIDENING AND REPATR	OAKLAND	0.0	622
M150	ROAD #1 OVER GTW RATIROAD & CLINTON RIVER	OVERLAY AND RALLINGS	OAKLAND	0.0	2000
M28	BRIDGE #6 OVER BALTIMORE RIVER	DECK OVERLAY	ONTONAGON	0.0	43
M64	BRIDGES #58#8 OVER TOWNLINE CREEK	DECK OVERLAY	ONTONAGON	0.0	44
M53	STRUCTURE #1.#78#9 AT M36 STRUCTURE #1.#78#9 AT M36 STRUCTURE #3 UNDER I94BL WEST OF KALAMAZOO ROAD #1 OVER CONRAIL RAILROAD & 4 OTHERS BRIDGE #1 OVER EAGLE CREEK & BRIDGES #28#3 STRUCTURE #4 UNDER 68TH STREET BRIDGE #1 OVER MANISTEE RIVER ROAD #1 OVER LS&I RAILROAD BRIDGE #1 OVER MANISTEE RIVER ROAD #1 OVER LS&I RAILROAD BRIDGE #1 OVER INDIAN CREEK & 2 OTHERS ROAD #3 OVER CONRAIL RAILROAD & RAISIN RIV STRUCTURE #13 AT CROOKS ROAD, TROY ROAD #1 OVER GTW RAILROAD & CLINTON RIVER BRIDGE #6 OVER BALTIMORE RIVER BRIDGE #5 OVER TOWNLINE CREEK AT NORTH BRANCH CASS RIVER & BRIDGE #4 STRUCTURE #7 UNDER PLATT ROAD ROAD #1 OVER CONRAIL RAILROAD & HURON RIV STRUCTURE #7 UNDER TERRITORIAL ROAD ROAD #1 OVER CONRAIL RAILROAD & HURON RIV STRUCTURE #23 UNDER WYOMING, DETROIT	APPROACH AND DECK	SANILAC	0.0	330
194	STRUCTURE #7 UNDER PLATT ROAD	OVERLAY AND RAILING	WASHTENAW	0.0	98
US23BR	ROAD #1 OVER CONRATE RATEROAD & HURON RIV	PINS AND HANGERS	WASHTENAW	0.0	150
US23	STRUCTURE #7 UNDER TERRITORIAL ROAD	OVERLAY AND RAILING	WASHTENAW	0.0	77
US 23	ROAD #1 OVER CONRATL RATIROAD & HURON RIV	PINS AND HANGERS	WASHTENAW	0.0	250
US 10	STRUCTURE #23 UNDER WYOMING, DETROIT	DECK REPLACEMENT AND RAILINGS	WAYNE	0.0	500
194	STRUCTURE #23 F. BOUND OVER OUTER DR&G OTH	CONCRETE OVERLAY	WAYNE	0.0	446
US24	AT BRIDGE #1 BLAKELY, DEARBORN & BRIDGE #2	APPROACH AND SUPERSTRUCTURE	WAYNE	0.0	486
US24SB	STRUCTURE #1 OVER HINES DR. DEARBORN HGTS		WAYNE	0.0	110
US25TB	BRIDGE #4 OVER ROUGE RIVER	BRIDGE REPAIR	WAYNE	0.0	200
				0.0	827
194	STRUCTURE #2 EAST BD OVER WAYNE & 11 OTHS	DECK REPAIR AND RAILING	WAYNE	0.0	459
M39	STRUCTURE #4 OVER PURITAN AVE & STRUCT #6	DECK REPLACEMENT	WAYNE	0.0	760
194	STRUCTURE #10 MT ELLIDIT & STRUCTURE #12	OVERLAY AND RAILING	WAYNE	0.0	185
M39	STRUCTURE #11 UNDER M102. DETROIT	OVERLAY AND RAILINGS	WAYNE	0.0	105
US10	STRUCTURE #9 OVER CALVERT AVE & STRUCT #10	DECK REPLACEMENT	WAYNE	0.0	498
194	STRUCTURE #1 UNDER M3, DETROIT	OVERLAY AND RAILINGS	WAYNE	0.0	420
194	PEDESTRIAN #14 AT WOODLAND & PED #17	STRUCTURE APPROACH	WAYNE	0.0	20
175	STRUCTURE #7 AT SPRINGWELL & 3 DTHERS	DECK OVERLAY	WAYNE	. 0.0	473
175	STRUCTURE #21 AT 194EB & STRUCTURE #23	DECK OVERLAY	WAYNE	0.0	166
M153EB	BRIDGE #5 OVER ROUGE RIVER, DEARBORN	DECK OVERLAY	WAYNE	0.0	147
M37	STRUCTURE #13 OVER DAVIDSON AVE, DETROIT STRUCTURE #2 EAST BD OVER WAYNE & 11 OTHS STRUCTURE #4 OVER PURITAN AVE & STRUCT #6 STRUCTURE #10 MT ELLIOTT & STRUCTURE #12 STRUCTURE #11 UNDER M102, DETROIT STRUCTURE #9 OVER CALVERT AVE & STRUCT #10 STRUCTURE #9 OVER CALVERT AVE & STRUCT #10 STRUCTURE #1 UNDER M3, DETROIT PEDESTRIAN #14 AT WOODLAND & PED #17 STRUCTURE #7 AT SPRINGWELL & 3 OTHERS STRUCTURE #21 AT 194EB & STRUCTURE #23 BRIDGE #5 OVER ROUGE RIVER, DEARBORN BRIDGE #1 OVER PINE RIVER	PINS AND HANGERS	WEXFORD	0.0	150
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SUMMARIES FOR CATEGORY: BRIDGE REHABILITATION

TOTAL

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0.0

## Program Project listing -- FY85A 3/19/84 04/25/84

CATEGORY: BRIDGE REPLACEMENT

ROUTE LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
US2 BRIDGE #3 OVER PORTAGE CREEK	STRUCTURE REPLACEMENT	DELTA	0.0	81
US27NB BRIDGE #2 OVER N. BRANCH BAD RIVER	BRIDGE REPLACEMENT	GRATIOT	0.0	124
M49 AT ST. UDSEPH RIVER + BRIDGE #1	APPROACH AND STRUCTURES	HILLSDALE	0.0	755
M19 BRIDGE #1 OVER S. BRANCH SALT RIVER	STRUCTURE REPLACEMENT	MACOMB	0.0	80
M120 AT C&D RAILROAD NE OF N MUSK + ROAD #	1 APPROACH AND STRUCTURES	MUSKEGON	0.0	623
M37 AT C&O RALIRDAD & PENDYER CREEK + RDA		NEWAYGO	0.0	955
M29 BRIDGE #3 OVER BEAUBEIN CREEK	BRIDGE REPLACEMENT	ST. CLAIR	0.0	190
M19 BRIDGE #1 OVER SULLIVAN DRAIN	STRUCTURE REPLACEMENT	ST. CLAIR	0.0	95
M19 BRIDGE #1 OVER EMMETT DRAIN	BRIDGE REPLACEMENT	ST. CLAIR	0.0	120

SUMMARIES FOR CATEGORY: BRIDGE REPLACEMENT

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TOTAL

3023

0.0

CATEGORY: ENVIRONMENTALLY RELATED

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
M28.	MUNISING SCENIC TURNOUT	DISPLAY	ALGER	· 0.0	5
169	US12 TO NORTH COUNTY LINE	LANDSCAPING	BRANCH	9.5	250
169		LANDSCAPING	CALHOUN	2.0	150
194		LANDSCAPING	CALHOUN	8.3	250
175	S COUNTY LINE TO INTERNATIONAL BR + R A	LANDSCAPING ROADSIDE AND REST AREA	CHIPPEWA	26.6	275
1475	STEWART STREET TO CORNELL STREET	LANDSCAPING	GENESEE	2.3	195
1475		LANDSCAPING	GENESEE	3.0	250
M99		LANDSCAPING	INGHAM	0.5	20
196	M66 TO EAST COUNTY LINE + REST AREA	LANDSCAPING	IONIA	13.4	350
196	WEST COUNTY LINE TO MGG + REST AREA	LANDSCAPING	IONIA	12.0	200
I94WB	EAST OF LOVERS LANE TO PORTAGE ROAD	SOUND BARRIER	KALAMAZOO	0.6	848
194	WEST COUNTY LINE TO 9TH STREET + REST AREA	LANDSCAPING	KALAMAZOO	4.9	88
I94EB	EAST OF LOVERS LANE TO PORTAGE ROAD	SOUND BARRIER	ΚΑΕΑΜΑΖΟΟ	0.7	805
I94WB	PORTAGE ROAD EAST, KALAMAZOD	SOUND BARRIER	KALAMAZOO	0.6	584
194	EAST OF LOVERS LANE TO EAST OF PORTAGE RD	LANDSCAPING BARRIER	KALAMAZOO	1.3	140
194	1948L TO EAST COUNTY LINE + REST AREA	LANDSCAPING	KALAMAZOO	11.1	275
US131SB	36TH STREET TO M11, WYDMING	SOUND BARRIER	KENT	0.7	462
<ul> <li>US131SB</li> </ul>	36TH STREET TO M11, WYOMING	LANDSCAPING BARRIER	KENT	0.7	70
US23		WATER SYSTEM	LIVINGSIDN	0.0	750
US23NB	NORTH OF 8 MILE ROAD TO SOUTH OF 9 MILE	SOUND BARRIER	LIVINGSTON	0.9	435
175	US2 TO NORTH COUNTY LINE	LANDSCAPING	MACKINAC	24.6	250
US2	EPOUFETTE SCENIC TURNOUT	DISPLAY	MACKINAC	0.0	5
194		LANDSCAPING BARRIER	MACOMB	1.7	168
M29	CRAPEAU CREEK TO E COUNTY LINE N. BALTIMOR		MACOMB	2.1	75
194		SOUND BARRIER	MACOMB	1.7	1122
US41	MENOMINEE TRAVEL INFORMATION CENTER	DISPLAY	MENOMINEE	0.0	4

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## Program Project listing -- FY85A 3/19/84 04/25/84

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
196	WEST COUNTY LINE TO MEADOWBROOK ROAD	LANDSCAPING	OAKLAND	t1.4	275
1696	175 TO EAST COUNTY LINE	LANDSCAPING	OAKLAND	1.5	225
US31	HART REST AREA SCENIC TURNOUT	DISPLAY	OCEANA	0.0	6
US27	HOUGHTON LAKE REST AREA	DISPLAY	ROȘCOMMON	0.0	6
175	REST AREA SOUTH OF SAGINAW	DISPLAY	SAGINAW	0.0	5
M29	COUNTY #3 AT PEARL BEACH DRAIN	CULVERT REPLACEMENT	ST. CLAIR	0.0	250
194	M51 TO EAST COUNTY LINE	LANDSCAPING	VAN BUREN	10.6	212
I94WB	US12 TO WHITTAKER ROAD	LANDSCAPING BARRIER	WASHTENAW	0.8	56
I94WB	US12 TO WHITTAKER ROAD	SOUND BARRIER	WASHTENAW	0.8	505
194	LODGE (USIO) TO GRATIOT (M3)	LANDSCAPING	WAYNE	4.1	450
194	OZGA RUAD TO SHOOK ROAD, ROMULUS	SOUND BARRIER	WAYNE	0.4	264
196	HUBBELL TO CR RAILROAD SPUR (XO8)	LANDSCAPING BARRIER	WAYNE	0.3	45
M14	WEST COUNTY LINE TO WEST OF BECK ROAD	LANDSCAPING	WAYNE	2.9	70
194	OZGA ROAD TO SHOOK ROAD, ROMULUS	LANDSCAPING BARRIER	WAYNE	0.4	40
175	EUREKA TO ALLEN. TAYLOR	SOUND BARRIER	WAYNE	0.4	200
I94WB	PARDEE ROAD TO PELHAM, TAYLOR	LANDSCAPING BARRIER	WAYNE	0.9	89
1275	US12 TO WARREN ROAD (82293)	LANDSCAPING	WAYNE	Э.7	250
175	REST AREA AT ENTRANCE TO AMBASSADOR BRIDGE	REST AREA AND INFORMATION STATION	WAYNE	0.0	2766
196	HUBBELL TO CR RAILROAD SPUR (XO8)	SOUND BARRIER	WAYNE	0.3	300
I75NB	TOLEDO/DIX TO CHAMPAIGN, LINCOLN PARK	SOUND BARRIER	WAYNE	0.5	330
194	LONYO TO LIVERNOIS, DETROIT	SOUND BARRIER	WAYNE	2.4	1584
I75NB	TOLEDO/DIX TO CHAMPAIGN, LINCOLN PARK	LANDSCAPING BARRIER	WAYNE	0.5	49
194WB	PARDEE ROAD TO PELHAM, TAYLOR	SOUND BARRIER	WAYNE	0.9	594
I94	LONYO TO LIVERNOIS, DETROIT	LANDSCAPING BARRIER	WAYNE	2.4	238
RIES FOR	CATEGORY: ENVIRONMENTALLY RELATED				
			9	174.4	16835

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TOTAL

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CATEGORY: MAJOR WIDENING

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. CDST (x1000)
US2	W CITY LIMITS OF ESCANABA TO WILLOW CREEK	WIDENING 5 LANES	DELTA	0.5	450
U\$31	DIVISION ROAD TO RICE STREET	WIDENING 4 LANES	EMMET	0.4	331
U\$31	RICE STREET TO EAST OF M119	WIDENING 5 LANES	ЕММЕТ	0.5	536
M121TB	1475 TO EAST OF M54BR, BURTON	WIDENING 5 LINES	GENESEE	0.5	625
U\$31	5 MILE ROAD TO NORTH JUNCTION M72	WIDENING 5 LANES CURBS AND GUITERS	GRAND TRAVERSE	- 1.0	1200
M53	NORTH CITY LIMITS BAD AXE TO NORTH OF M142	WIDENING 5 LANES CURBS AND GUTTERS	HURON	1.2	1310
196BL	CLOVERLND TO HOLMES + PEDESTRIAN #2	WIDENING 5 LANES	INGHAM	1.0	790
I96BL	NORTH OF HOLMES TO MT HOPE, LANSING	WIDENING 5 LANES	INGHAM	1.0	696
US131	54TH STREET TO M11, WYOMING	WIDENING 2 AT 36	KENT	3.4	1530
M52	ALBERT TO E OF DT&I RAILROAD, N OF ADRIAN	WIDENING 5 LANES	LENAWEE	3.2	4267
196BL	AT ANN ARBOR RAILROAD EAST	WIDENING 5 LANES CURBS AND GUTTERS	LIVINGSTON	1.0	650
US41	TEAL LAKE ROAD TO HERITAGE ROAD	WIDEN 5 LANES AND NON-MOTORIZED PATH	MARQUETTE	1.5	800
US10831	W JUNCTION US31 TO PROPOSED US31 FREEWAY	WIDENING 5 LANES	MASON	1.8	1965
U\$24	M50 TO CUSTER DRIVE	WIDENING 5 LANES	MONROE	O.4	1710

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ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. CDST (×1000)
1948L	WEBER'S IN TO 194 OVERPASS	WIDENING 5 LANES	WASHTENAW	0.3	174
M102	M5 TO WEST OF M39 + BRIDGES #1 & #2	ADD LANE AND RECYCLE	WAYNE	5.2	3482
US12	WASHINGTON TO ELM. DEARBORN	WIDENING AND RECONSTRUCTION 5 LANES	WAYNE	1.1	2500
M85	OUTER DRIVE TO SCHAEFER, DETROIT	ADD LANE AND RESURFACE	WAYNE	1.1	1000
SUMMARIES FOR	R CATEGORY: MAJOR WIDENING				
TOTAL				25.1	24016

#### CATEGORY: MINOR WIDFNING

WORK-TYPE COUNTY MILES EST. COST ROUTE LOCATION DESCRIPTION (×1000) WIDENING AND RESURFACING GRATIOT 0.3 200 US27BR SUPERIOR TO ELWELL. ALMA M125 TB SOUTH CITY LIMITS MONROE TO STEWART WIDENING AND RESURFACING MONROE 283 1.9 RECYCLE AND WIDEN ONTONAGON 10.5 2973 M26 M38 TO EAST COUNTY LINE M13 NORTH LANE OF 175 INTERCHANGE TO BRIDGE #1 WIDEN AND RESURFACE AND NON-MOTORIZED SAGINAW 3.4 1490 AT BROADWAY STREET, THREE RIVERS ST. JOSEPH 90 WIDENING 0.0 M86 SOUTH OF M153 TO NORTH OF PLYMOUTH RD, D H WIDENING AND RAILINGS WAYNE 799 **US24** 3.5 SUMMARIES FOR CATEGORY: MINOR WIDENING 5835 TOTAL 19.6

CATEGORY: NEW ROUTE

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
169	EAST OF WEBSTER ROAD TO EAST COUNTY LINE	FREEWAY CONSTRUCTION	CLINTON	4.8	13390
169	US127 TO EAST OF WEBSTER ROAD	FREEWAY CONSTRUCTION	CLINTON	4.1	16965
1696	WEST OF 10.5 MILE TO WEST OF CHURCH, SFD+OP	TUNNEL SEWER	OAKLAND	0.8	2500
1696	LONGFELLOW TO 175, ROYAL OAK	LANDSCAPING	OAKLAND	1.3	225
U\$131	N OF S COUNTY LINE TO N OF USIO INTERCHNG	FREEWAY PAVING	OSCEOLA	5.3	3800

#### SUMMARIES FOR CATEGORY: NEW ROUTE

TOTAL

16.3 36880

CATEGORY: RECONSTRUCTION

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ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
M25	MADISON TO JOHNSON, BAY CITY	RECONSTRUCTION 5 LANES	BAY	0.7	1650
I94BL	AT GRADE #2 C&O RAILROAD, BENTON HARBOR	CROSSING RECONSTRUCTION	BERRIEN	0.0	70
1946L 194	AT 28 MILE ROAD INTERCHANGE	RECONSTRUCTION RAMPS	CALHOUN	0.5	50
194 169	WEST COUNTY LINE TO 175	FREEWAY UPGRADE	GENESEE	10.2	1300
M54	OLD M54BR TO SOUTH OF HEMPHILL	RESURFACING AND RECONSTRUCTION	GENESEE	2.3	200
M34 I75	AT DORT HIGHWAY	INTERCHANGE REVISION	GENESEE	0.8	4400
	EAST OF HODGE RD TO WEST OF FORREST RD	RECONSTRUCTION AND RELOCATION	GRAND TRAVERSE	1.8	800
M186KEL	US41 (HANCOCK) EAST	RECONSTRUCTION AND WIDENING	HOUGHTON	0.5	460
194BL	PITCHER TO MILL + 11 STRUCTURES	RAILROAD CONSOLIDATE	KALAMAZOO	0.0	9163
1948L 194WB	REST AREA EAST OF KALAMAZOO (CONTR #1)	GRADING AND DRAINAGE STRUCTURES, PAVIN		0.0	750
1948L	PITCHER STREET TO EAST OF WALLBRIDGE	TEMPORARY CONNECTION	KALAMAZOO	0.2	460
1948C 194WB	REST AREA EAST OF KALAMAZOD (CONTR #3)	SANITARY SEWERS	KALAMAZOO	0.0	90
194WB	REST AREA EAST OF KALAMAZOO (CONTR #2)	MODERNIZATION BUILDING AND LIGHTING	KALAMAZOO	0.0	430
1948L	AT WALLBRIDGE STREET, KALAMAZOO	TEMPORARY CROSSING	KALAMAZOO	0.0	218
	IONIA TO DAVIDSON, GRAND RAPIDS	MINOR RECONSTRUCTION	KENT	0.0	200
196	AT M44 CONNECTOR, GRAND RAPIDS	INTERCHANGE UPGRADE	KENT	0.0	1000
US131	AT 54TH STREET. WYOMING	INTERCHANGE UPGRADE	KENT	0.0	1515
196	AT M37 INTERCHANGE, WALKER	INTERCHANGE UPGRADE	KENT	0.0	1127
M22	AT M109 (SOUTH JUNCTION) EAST OF EMPIRE	INTERSECTION RECONSTRUCTION	LEELANAU	0.0	135
M52	AT GRADE #1 N&W RAILROAD, NORTH OF ADRIAN	APPROACH	LENAWEE	0.0	16
US223	AT US223BR WEST JUNCTION, ADRIAN	INTERSECTION RECONSTRUCTION	LENAWEE	0.0	156
M52	GRADE #1 N&W RAILROAD, NORTH OF ADRIAN	CRDSSING RECONSTRUCTION	LENAWEE	0.0	57
U\$2	PTE AUX CHENES TO EAST OF MORAN ROAD	RECONSTRUCTION AND RESURFACING	MACKINAC	7.2	2479
M123	AT GRADE #1 SL RAILROAD, SE OF MORAN + G#2		MACKINAC	0.0	48
M123	GRADE #1 SL RAILROAD, SE OF MORAN + G #2	CROSSING RECONSTRUCTION	MACKINAC	0.0	90
' M59	AT GRADE #1 GTW RAILROAD, MT CLEMENS	APPROACH	MACOMB	0.0	14
M59	GRADE #1 GTW RAILROAD, MT CLEMENS	CROSSING RECONSTRUCTION	MACOME	0.0	68
US41	AT GRADE #5 SL RAILROAD, EAST OF HUMBOLT	APPROACH	MARQUETTE	0.0	42
U\$41	GRADE 5 SL RAILROAD, EAST OF HUMBOLT	CROSSING RECONSTRUCTION	MARQUETTE	0.0	94
M35	NORTH OF GWINN TO PALMER	RECONSTRUCTION AND RELOCATION	MARQUETTE	15.6	4110
US31BR	COLBY SIREET TO WATER STREET + BRIDGE #1	RECONSTRUCTION AND REPLACE	MUSKEGON	0.6	1080
M46	GRADE #1 C&O RAILROAD, MUSKEGON	CROSSING RECONSTRUCTION	MUSKEGON	0.0	53 16
M46	AT GRADE #1 C&O RAILROAD, MUSKEGON	APPROACH	MUSKEGON DAKLAND	0.0	1313
175	AT SASHABAW ROAD	INTERCHANGE UPGRADE	OAKLAND	0.5	525
US 10	NW OF WILLIAM TO SE OF PARKINSON	RECONSTRUCTION 5 LANES RECONSTRUCTION 5 LANES	DAKLAND	0.3	475
US 10	SOUTHEAST OF PARKINSON TO TELEGRAPH	RECYCLE 13.3	ROSCOMMON	16.3	2688
175	EAST COUNTY LINE TO POWER LINE ROAD GRADE #4 AT C&O RAILROAD, SAGINAW	CROSSING RECONSTRUCTION	SAGINAW	0.0	114
M13 I69	CHURCH ROAD TO EAST COUNTY LINE	FREEWAY UPGRADE	SHIAWASSEE	16.0	2442
169WB	REST AREA EAST OF WOODBURY	GRADING AND DRAINAGE STRUCTURES	SHIAWASSEE	0.0	750
194	AT US23 INTERCHANGE	INTERCHANGE UPGRADE	WASHTENAW	- 0.0	250
194	AT WEST JUNCTION 194BL, ANN ARBOR	INTERCHANGE UPGRADE	WASHTENAW	0.0	1500
194EB	REST AREA EAST OF WAYNE ROAD	GRADING & DRAINAGE STRUCTURES, SURFACI		0.0	850
194EB	REST AREA EAST OF WAYNE ROAD	MODERNIZE BUILDING	WAYNE	0.0	425
M3	ORLEANS AVENUE TO ST AUBIN, DETROIT	RECONSTRUCTION	WAYNE	0.3	300
175	AT WEST ROAD(STRUCTURE #7), WOODHAVEN	INTERCHANGE RECONSTRUCTION	WAYNE	0.0	3888
194EB	AT WYOMING OFF RAMP	RADIUS AND SIGNAL	WAYNE	0.0	30
194	PELHAM TO EAST LIMITS M39 INTERCHANGE	INTERCHANGE RECONSTRUCTION #2A	WAYNE	1.0	3990
194	AT M39 (SOUTHFIELD ROAD) + 3 STRUCTURES	INTERCHANGE RECONSTRUCTION #3	WAYNE	0.0	5200
194	AT M53 INTERCHANGE, DETROIT	INTERCHANGE UPGRADE	WAYNE	0.0	500

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ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
US24NB 175 194	SOUTH OF M153 TO NORTH OF PLYMOUTH RD, D AF SCHAEFER, DETROIT AND MELVINDALE PELHAM TO ECOURSE CREEK AT M39	H RESURFACE AND LIFT INTERCHANGE UPGRADE INTERCHANGE RECONSTRUCTION #2	WAYNE WAYNE WAYNE	3.5 0.0 1.3	670 250 11704
SUMMARIES FO	CATEGORY: RECONSTRUCTION				
TOTAL				79.6	70205

CATEGORY: RELOCATION

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
US31	US12 TO WALTON ROAD	FREEWAY PAVING	BERRIEN	3.6	5000
US31 T	US31 FREEWAY TO EXISTING US31	RECONSTRUCTION AND RELOCATION	BERRIEN	1.8	500
M5.4	175 TO NURTH OF GIBSON ROAD	NEW 4 LANE	GENESEE	1.5	1820
M21	(NEWARK ROAD) M53 TO M24	REHABILITATION	LAPEER	13.0	305
US 13 1	19 MILE ROAD TO NORTH OF NORTH COUNTY LINE	FREEWAY PAVING	MECOSTA	5.0	3000
US131	SYLVAN ROAD TO NORTH OF LUTHER ROAD	FREEWAY CONSTRUCTION	OSCEOLA	4.2	9653
US131	NORTH OF USIO TO SYLVAN ROAD	FREEWAY CONSTRUCTION	OSCEOLA	4.9	7635

### SUMMARIES FOR CATEGORY: RELOCATION

TOTAL

CATEGORY: RESTORATION AND REHABILITATION

ROUTE	LOCATION DESCRIPTION	WORK~TYPE	COUNTY	MILES	EST. CDST (×1000)
M28	ONOTA STREET TO ANNA ROAD, MUNISING	DRAINAGE CORRIDOR	ALGER	0.4	251
US41	GRADE #1 AT SL RAILROAD, BARAGA	CROSSING REMOVAL	BARAGA	0.0	20
M13	SALTZBURG TO FISHER, BAY CITY	RESURFACE, JOINTS AND SHOULDERS	BAY	1.0	150
194	NEW BUFFALO WEIGH STATION	BUILDING AND UTILITIES	BERRIEN	0.0	250
<sup>`</sup> 194	NEW BUFFALD WEIGH STATION	SCALES	BERRIEN	0.0	300
194	3 MILE INTERCHANGE TO M66	PAVEMENT REHABILITATION	CALHOUN	3.1	400
194	26 MILE ROAD EASTERLY TO EAST COUNTY LINE	PAVEMENT REHABILITATION	CALHOUN	5.0	4500
US41	GRADE #1 SL RAILROAD, CHASSELL	CROSSING REMOVAL	HOUGHTON	0.0	43
U\$41	GRADE #1 SL RAILROAD, CHASSELL	SIGNAL REMOVAL	HDUGHTON	0.0	9
194	194BL TO EAST OF GALESBURG CONNECTION	REHABILITATE AND OVERLAY	KALAMAZOO	7.8	10200
US131	SOUTH OF WEALTHY TO NORTH OF MARKET, G. R.	RAMP MODIFICATION	KENT	0.0	450
M72	COLEMAN ROAD TO GREEN ROAD	IMPROVEMENT AND RESURFACING	LEELANAU	11.3	2551
M19	S OF S CITY LIMIT MEMPHIS TO N CITY LIMIT	RESURFACE, SHOULDERS AND JOINTS	MACOMB	1.5	500

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ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
US41BR	GRADE #1 SL RAILROAD, MARQUETTE	CROSSING REMOVAL	MARQUETTE	0.0	37
175NB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	RB PAVING #1	MONROE	0.0	183
175	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	SIGNING NORTHBOUND AND SOUTHBOUND	MONROE	0.0	97
I75NB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	RC PAVING #1	MONROE	0.0	198
175	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	LIGHTING NORTHBOUND AND SOUTHBOUND	MONROE	0.0	114
175NB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	RC PAVING #2	MONROE	0.0	198
175NB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	BUILDING AND SEWERS	MONROE	0.0	125
175SB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	RJ PAVING #1	MONROE	0.0	184
175SB	AT LUNA PIER ROAD INTERCHANGE	RECYCLE PAVING	MONROE	0.0	121
175NB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	RB PAVING #2	MONROE	0.0	198
I75	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	SCALES NORTH AND SOUTH	MONROE	0.0	95
I75SB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	RK PAVING #1	MONROE	0.0	195
I75	AT ERIE ROAD WEIGH STATION	OBL EXISTING STATION	MONROE	0.0	124
I75SB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	BUILDING AND SEWERS	MONROE	0.0	125
I7558	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	RJ PAVING #2	MONROE	0.0	163
I75SB	AT WEIGH STATION NORTH OF ALLEN COVE ROAD	RK PAVING #2	MONROE	0.0	196
175	POWER LINE ROAD TO NORTH COUNTY LINE	FINAL COURSE	ROSCOMMON	7.3	777
175	EAST COUNTY LINE TO POWER LINE ROAD	BITUMINOUS OVERLAY	ROSCOMMON	16.3	1486
M46	WEST TO EAST OF HEMLOCK ROAD + SEWER	INTERSECTION IMPROVEMENT	SAGINAW	0.8	100
US 10	WYOMING AVENUE TO 175, DETROIT	RECYCLE AND SHOULDERS	WAYNE	8.1	22446
194	DRAIN #1 AT PELHAM ROAD, ALLEN PARK	PUMPHOUSE	WAYNE	0.0	640
US10	8 MILE ROAD TO RANDOLPH STREET, DETROIT	SIGNING REHABILITATION	WAYNE	12.7	250
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SUMMARIES FOR CATEGORY: RESTORATION AND REHABILITATION

75.3 47676

CATEGORY: RESURFACING

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
мбо	M62 TO STATE STREET, CASSOPOLIS	CURBS AND GUTTERS AND RESURFACING	CASS	0.5	150
M54	BALDWIN ROAD TO SOUTH OF SAGINAW STREET	RESURFACING AND SHOULDERS	GENESEE	5.0	364
M26 TB	SOUTH OF ATLANTIC MINE NORTHEASTERLY	RESURFACING	HOUGHTON	1.2	73
M26	SOUTH LIMITS PAINESDALE TO N OF S RANGE	BITUMINOUS RESURFACING	HOUGHTON	4.3	318
M36	TEMPLE STREET TO WEST OF UNION, DANSVILLE	RESURFACING AND SHOULDERS	INGHAM	6.6	989
175NB	AT ERIE ROAD INTERCHANGE	REST AREA PAVING	MONROE	0.0	139
M76 TB	OLD M55 TO NORTH OF CARTER LAKE ROAD	RESURFACING AND INTERSECTION	ROSCOMMON	2.2	144
US2	M149 TO WEST CITY LIMITS, MANISTIQUE	RESURFACING EXISTING	SCHOOLCRAFT	4.1	940

SUMMARIES FOR CATEGORY: RESURFACING

TOTAL

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TOTAL

PAGE

CATEGORY: SAFETY

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
M D WD	DISTRICT #7 I94BL AND M96	SPECIAL PAVEMENT MARKING	-STATE WIDE	0.0	10
M28	GRADE #1 LS&I RAILRDAD, MUNISING	RAILROAD CROSSING	ALGER	0.0	50
M28	AT GRADE #1 LS&I RAILROAD, MUNISING	RAILROAD APPROACH	ALGER	0.0	43
M25	AT SAGINAW RIVER BRIDGE #1. BAY CITY	INTERSECTION REVISION	BAY	0.0	100
US31	STATE LINE TO WALTON ROAD	TRAFFIC SIGNING	BERRIEN	6.9	250
I475	STRUCTURE #9 UNDER 12 ST + 2 OTHERS, FLINT		GENESEE	0.0	69
I475	STRUCTURE #15 UNDER 5TH STREET + 3 OTHERS		GENESEE	0.0	198
M54	DODGE ROAD TO CLIO ROAD	SAFETY UPGRADE	GENESEE	4.4	312
M57	175 TO WEST CITY LIMITS CLID	SAFETY UPGRADE	GENESEE	1.2	14
M54	CLIO ROAD TO BIRCH RUN (73131)	SAFETY UPGRADE	GENESEE	3.2	100
US27	NORTH OF PIERCE ROAD TO NORTH COUNTY LINE		GRATIOT	16.7	634
M53	GRADE #1 AT C&O RAILROAD, BAD AXE	RAILROAD CROSSING	HURON	0.0	93
194	EAST OF ELM ROAD TO WEST OF SARGENT ROAD		JACKSON	3.2	850
I94BL	AT M96. KALAMAZOO	ISLAND REMOVAL	KALAMAZOO	0.0	29
M43	AT MILL BLAIN, KALAMAZOO	ISLAND ENLARGEMENT	KALAMAZOO	0.0	19
US 10BR	WEST OF US10 EASTERLY + M47, 09091 & 73075		MIDLAND	G.8	395
US24	SAMARIA ROAD TO M125	YELLOW BOOK UPGRADE	MONROE	13.7	601
US24	M125 TO NORTH COUNTY LINE	YELLOW BOOK UPGRADE	MONROE	8.8	282
M13	AT GRADE #4 C&O RAILROAD, SAGINAW	CROSSING REMOVAL	SAGINAW	0.0	80
	175 TO GERA ROAD (M83)	SAFETY UPGRADE	SAGINAW	1.9	227
194	M14 TO US23, ANN ARBOR 81104	PAVEMENT GRINDING	WASHTENAW	9.0	750
US23	194 TO 196	YELLOW BOOK DECK AND RAILING	WASHTENAW	24.8	1661
US 10	8 MILE ROAD TO WYOMING AVENUE. DETROIT		WAYNE	0.0	225
US10	8 MILE ROAD TO RANDOLPH STREET, DETROIT	YELLOW BOOK SIGNING	WAYNE	12.7	150
US24	SOUTH OF M153 TO NORTH OF PLYMOUTH ROAD DH		WAYNE	3.5	875
SUMMARIES FOR	CATEGORY: SAFETY				
TOTAL				116.8	8017
CATEGORY: TR	AFFIC OPERATIONS				
ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
175		ELECTRONIC SURVEILLANCE SYSTEM	WAYNE	5.9	2383
175	SOUTH LIMITS OUTER DRIVE TO 14TH STREET	ELECTRONIC SURVEILLANCE SYSTEM	WAYNE	7.6	5456
SUMMARIES FOR	CATEGORY: TRAFFIC OPERATIONS				
TOTAL				13.5	7839

142

580.4

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### CATEGORY: TSM

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST CDST (×1000)
M46 US24SB M115 US131	AT M52 (GRAHAM ROAD) AT CAPITOL. REDFORD TOWNSHIP O.9 MILE SOUTHEAST OF EAST JUNCTION M37 13TH STREET TO WORKS AVENUE	LEFT TURN LANE RIGHT TURN LANE RELIEF LANE LEFT TURN LANE	SAGINAW WAYNE WEXFORD WEXFORD	0.0 0.0 1.9 0.0	54 29 630 196
SUMMARIES FOR	CATEGORY: TSM				
TOTAL				1.9	909

### SUMMARIES FOR FINAL

TOTAL

### SUMMARY OF RECORDS INPUT AND SELECTED FROM INPUT

### INPUT SECTION

### MAIN-FILE

RECORDS ACCESSED:	264
NULL RECORDS ADDED:	0
TOTAL RECORDS INPUT:	264
RECORDS SELECTED:	264

### **REPORT SECTION 1**

### LOGICAL RECORDS

INPUT:	264
SELECTED:	264

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\*\* NUMBER OF EXCEPTIONS:

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ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
	BRIDGE #1 OVER GRAND RIVER + BRIDGE #2 BRIDGE #1 OVER PENTWATER RIVER AT BRIDGE #5 SOUTH OF UNIONVILLE	PINS AND HANGERS PINS AND HANGERS APPRDACH AND STRUCTURES	EATON OCEANA TUSCOLA	0.0 0.0 0.0	250 150 481
SUMMARIES FOR	CATEGORY: BRIDGE REHABILITATION				
TOTAL				0.0	881

CATEGORY: BRIDGE REPLACEMENT

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45 1

LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
BRIDGE #1 OVER FLOWERFIELD CREEK	BRIDGE REPLACEMENT	ST. JOSEPH	0.0	99
OR CATEGORY: BRIDGE REPLACEMENT			-0.0	99
		BRIDGE #1 OVER FLOWERFIELD CREEK BRIDGE REPLACEMENT	BRIDGE #1 OVER FLOWERFIELD CREEK BRIDGE REPLACEMENT ST. JOSEPH FOR CATEGORY: BRIDGE REPLACEMENT	BRIDGE #1 OVER FLOWERFIELD CREEK BRIDGE REPLACEMENT ST. JOSEPH 0.0 FOR CATEGORY: BRIDGE REPLACEMENT

CATEGORY: ENVIRONMENTALLY RELATED

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
I 496	AT US127 ALONG RED CEDAR RIVER	NON-MOTORIZED PATH	INGHAM	0.4	50
SUMMARIES FOR	CATEGORY: ENVIRONMENTALLY RELATED				
TOTAL				. 0.4	50

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### Program Project listing -- FY85B 3/23/84 04/25/84

CATEGORY: MAJOR WIDFNING

	ROUTE	LOCATION DESCRIPTION	WORK - TYPE	COUNTY	MILES	EST. COST (×1000)
	M99 M121TB I94 US24 M153 US131	S OF M50 TO N CITY LIMITS EATON RAPIDS +B2 EAST OF M54BR TO M54, BURTON US12 TO FAST OF BRADLEY STREET SOUTH OF VREELAND ROAD NORTH SHELDON ROAD TO WEST OF HAGGERTY ROAD END OF DIVISION TO CURBED SECTION CADILLAC	WIDEN 5 LANES WIDEN AND RECYCLE WIDEN 5 LANES, CURES AND GUTTERS WIDEN 5 LANES, CURES AND GUTTERS	EATON GENESEE WASHTENAW WAYNE WAYNE WEXFORD	0.9 0.9 2.0 0.6 1.5 1.6	692 942 8636 660 1090 1200
SUMMA	RIES FOR	CATEGORY: MAJOR WIDENING				
TOTAL					7.5	13220
CATEG	ORY: MI	NOR WIDENING				
	ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
	.M29	COX CREEK, ALGONAC TO CHARTIER	WIDENING AND SHOULDERS	ST. CLAIR	6.1	1100
SUMMA	RIES FOR	CATEGORY: MINOR WIDENING				
TOTAL					6.1	1100
CATEG	ORY: NE	WROUTE				
,	ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
	1696	EAST OF RIDGE ROAD TO EAST OF MAIN STREET		OAKLAND	0.3	21290
•	1696 1696	WEST OF MAPLEFIELD TO EAST OF RIDGE ROAD EAST OF MAIN STREET TO WEST OF MOHAWK AVE	FREEWAY CONSTRUCTION	DAKLAND	0.4	7070
	1696	WEST OF LAHSER TO WEST OF EVERGREEN	FREEWAY CONSTRUCTION	OAKLAND OAKLAND	0.5	9050 19570
	1696	ROSEWOOD TO MAPLEFIELD	FREEWAY AND STRUCTURES	OAKLAND	0.4	9550
					- · ·	
SUMMA	RIES FOR	CATEGORY: NEW ROUTE				

TOTAL

146 -

66530

2.7

Program Project listing ~~ FY85B 3/23/84 04/25/84

### CATEGORY: RECONSTRUCTION

ROUTE LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. CDST (×1000)		
M29 WEST CITY LIMIT ALGONAC TO COX CREEK M24EXT M138 TO UNIONVILLE	RECONSTRUCTION 5 LANES RECONSTRUCTION	ST. CLAIR TUSCOLA	1.5 6.0	917 2900		
SUMMARIES FOR CATEGORY: RECONSTRUCTION						
TOTAL			7.5	3817		
CATEGORY: RELOCATION .			- (			

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
M26 M3 M3	SOUTH OF ATLANTIC MINE TO OLD M26 M1 TO RANDOLPH, DETROIT CONGRESS TO BRUSH, DETROIT	RECONSTRUCTION AND RELOCATION RECONSTRUCTION AND RELOCATION RECONSTRUCTION AND RELOCATION	HOUGHTON WAYNE WAYNE	0.2 0.3	1285 1045 1227
SUMMARIES FOR		· ·	· .		
TOTAL	τ			t.6	3557

### CATEGORY: RESTORATION AND REHABILITATION

ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
U\$31	REST AREA SOUTH OF US12	REST AREA BUILDING	BERRIEN	0.0	1350
M548R	NORTH CITY LIMIT FLINT TO M54 (EXCL MT M)	TURNBACK REHABILITATION	GENESEE	4.4	1437
M35	LITTLE LAKE TO COUNTY ROAD 553	UPGRADE 3R	MARQUETTE	2.8	420
M35	COUNTY ROAD 553 TO LOBB STREET, GWINN	UPGRADE 3R	MARQUETTE	3.7	592
US131NB	REST AREA NORTH OF CUTLER ROAD	REST AREA BUILDING	MONTCALM	0.0	300
M2.1WB	REST AREA, WEST, OF WADE ROAD. NEAR CAPAC	GRADING AND DRAINAGE STRUCTURES, PAVIN	N ST. CLAIR	. 0.0	800

### SUMMARIES FOR CATEGORY: RESTORATION AND REHABILITATION

TOTAL

10.9

PAGE

4

### Program Project listing -- FY85B 3/23/84 04/25/84

### CATEGORY: RESURFACING

M54 SOUTH COUNTY LINE TO BALDWIN ROAD RESURFACE AND SHOULDERS GENESEE 1.0 M54BR S CITY LIMIT TO N CITY LIMIT MT MORRIS RESURFACING AND REPAIR GENESEE 1.0	70 215
SUMMARIES FOR CATEGORY: RESURFACING	
TOTAL 2.0	285

### CATEGORY: SAFETY

1

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ROUTE	LOCATION DESCRIPTION	WORK-TYPE	COUNTY	MILES	EST. COST (×1000)
US 10 US 27	US27 TO EAST COUNTY LINE (18023) S COUNTY LINE TO SOUTH OF N COUNTY LINE	YELLOW BOOK UPGRADE YELLOW BOOK AND RAILINGS	ISABELLA ISABELLA	8.5 25.6	350 1331
SUMMARIES FO	R CATEGORY: SAFETY				
TOTAL		·		34.1	1681

### SUMMARIES FOR FINAL

TOTAL ,			72.8	96119

### SUMMARY OF RECORDS INPUT AND SELECTED FROM INPUT

INPUT SECTION			
MAIN-FILE		·	п.
RECORDS ACCESSE NULL RECORDS AD TOTAL RECORDS I RECORDS SELECTE	DED: 0 NPUT: 32 D: 32		
REPORT SECTION	1		
LOGICAL RECORDS			
INPUT: SELECTED:	32 32		

0

\*\* NUMBER OF EXCEPTIONS:

### A COMPARISON OF THE 1984-85 CONSTRUCTION PROJECT LIST TO THE TRUNKLINE CONDITION INFORMATION

In order to assess how well the construction program is addressing segments of the highway system that are in poor condition, a comparison of construction projects to the sufficiency condition ratings was made. Figures H14 and H15 show the comparison of the A list construction program to the sufficiency ratings for surface and capacity conditions. Resurfacing, reconstruction, restoration and rehabilitation (4R) projects were compared to the surface condition; major widening projects were compared to capacity ratings.

<u>Widening</u> projects on the A list amount to \$24 million on 25.1 miles. Of the miles being widened, 15.8 are on poor capacity rated miles at a cost of \$14.2 million. The remaining eight miles being widened are evenly distributed among intermediate and good capacity ratings at a cost of \$9.8 million.

When projects are proposed, projections of traffic growth for 20 years are required if federal aid urban matching funds are to be used. Project locations where there are good or intermediate capacity but future traffic projections predict poor capacity conditions are shown in Figure 16 as dark bands. They are M-53 in Huron County, US-131 in Kent County, M-52 in Lenawee County, US-24 in Monroe County and M-85 in Wayne County. All of these projects have a poor surface rating or are continuous to a poor capacity rated section.

Resurfacing, reconstruction, restoration and rehabilitation (4R) projects improve 144.6 miles at a cost of \$69.8 million. Of this, 116.6 miles correct poor surface rated conditions at a cost of \$63.1 million. There are 24.1 miles of good rated surface conditions corrected which cost \$5.4 million. One project, I-75 in Roscommon County, accounts for the 24.1 miles. Improvements are being made on this segment because of the pavement age and type. Much of the interstate system was constructed in the early 1960's, so reconstruction of this portion is expected at this time. Figure 17 shows these projects.

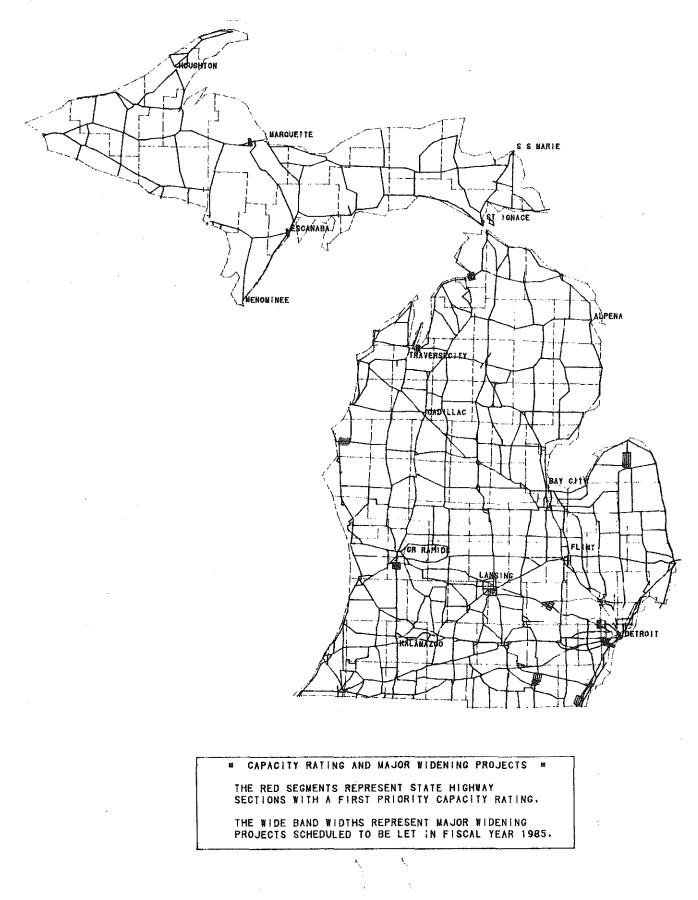
The projects on the B list can be budgeted if all apportioned funds are made available to the state. These projects amount to \$96.1 million on 72.8 miles. The majority of the project costs (67 percent) are in the new route program category. All of the new route projects are I-696 completion.

<u>Widening</u> projects on the B list are on 7.5 miles miles and cost \$13.2 million. Of these miles, all but two miles have poor capacity ratings. The two mile project on I-94 in Washtenaw County, currently has a good capacity rating, but forecasted traffic will create capacity problems that warrant widening. Plus, this segment is the only two lane section of freeway at that location, which causes problems with traffic flow. See Figure 18.

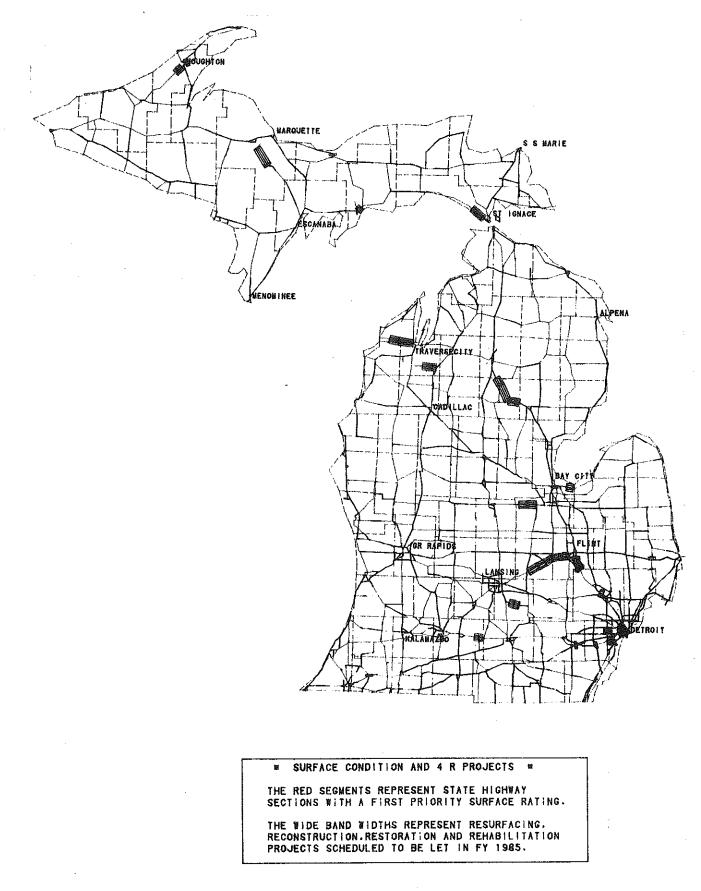
Resurfacing, reconstruction, restoration and rehabilitation (4R) projects are on 20.4 miles and cost \$9 million. Of these 4R projects, seven miles correct poor surface conditions at a cost of \$3 million. In addition, 6.5 miles rated intermediate in surface also have had a poor base which warrants reconstruction. See Figure 19.

1.1

### 1982 SUFFICIENCY CAPACITY CONDITION COMPARED TO A LIST MAJOR WIDEN PROJECTS

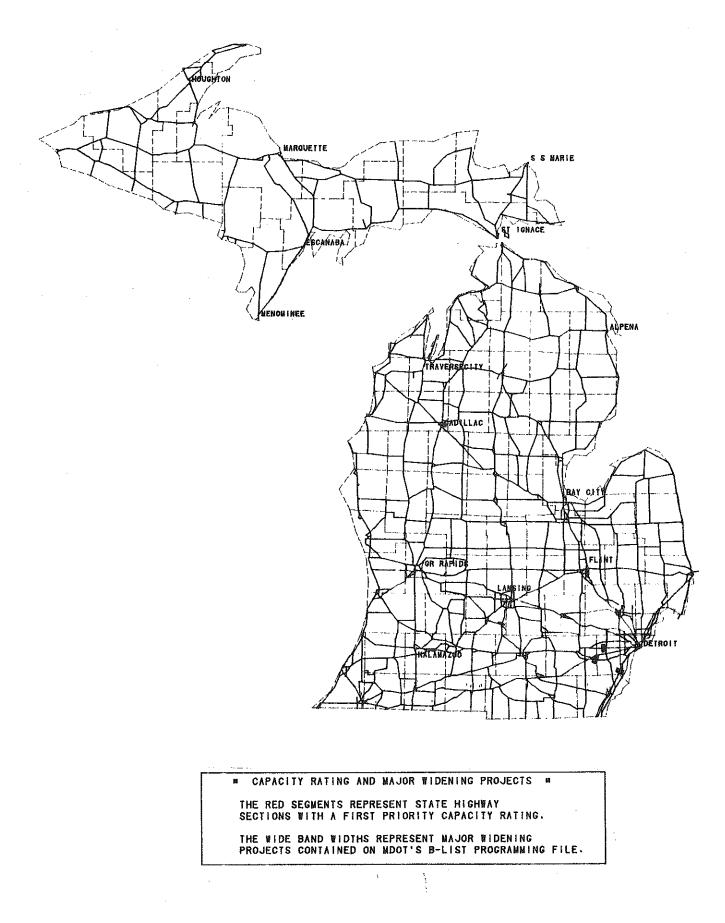


### 1982 SUFFICIENCY SURFACE CONDITION COMPARED TO A LIST RESURFACE RECONSTRUCTION, RESTORATION, REHABILITATION AND PROJECTS



### FIGURE H-18 1982 SUFFICIENCY CAPACITY CONDITION COMPARED TO B LIST MAJOR WIDEN PROJECTS

17-9 E



14

### 1982 SUFFICIENCY SURFACE CONDITION COMPARED TO B LIST RESURFACE RECONSTRUCTION, RESTORATION AND REHABILITATION PROJECTS

