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TO THE HIGHWAY USERS OF MICHIGAN

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LANSING, MICHIGAN

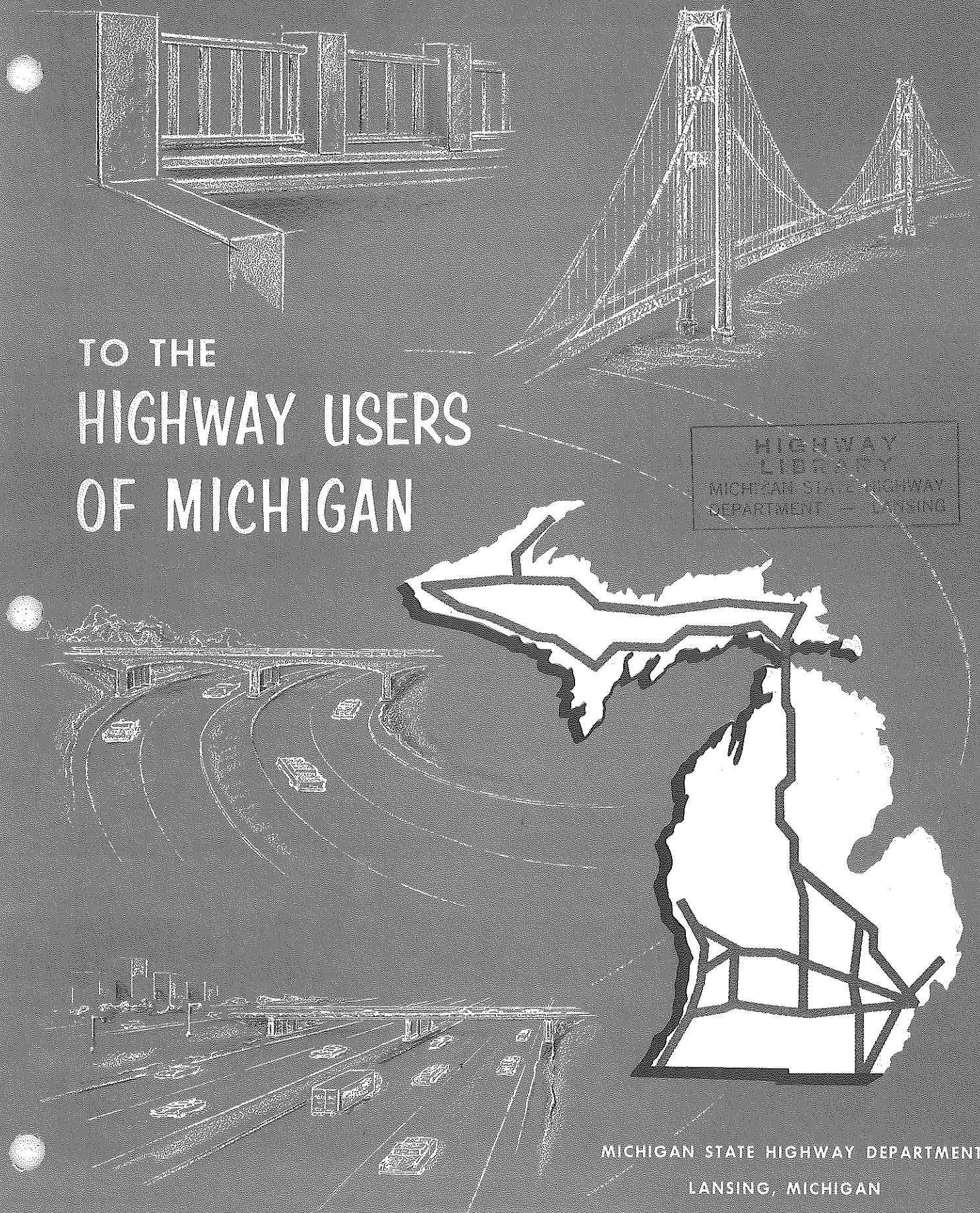


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AN ANNUAL REPORT FOR 1960

PRINTED MARCH 1961

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ATE FREEWAY
 QUICKER County Start

Xway Link
 Grand Rapids Unit to Cost \$7.5 M

Mackie Backs 'Right to Know'

Giant Detroit-Muskegon Interchange Up

RD FREEWAY

Michigan Will Set National Record with Letting \$45 Million

Watch I-94 Ceremony

Peninsula Road Program For 1961

Near 25 Million

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Michigan State Highway Commissioner John C. Mackie shows a plaque awarded the Highway Department as an "award of distinction" for its 1959 report to highway users. The award was made by the National Highway Users conference.

TO THE HIGHWAY USERS OF MICHIGAN

The road building program of the Michigan State Highway Department, which will amount to nearly \$2 billion in the years between 1957 and 1967, will cast a shadow generations long.

Our roads are determining where people will live, where they will work, where they will spend their money, where they will go to school. Our work directly affects the lives and welfare of every Michigan citizen.

We exercise this power as a public trust. We are spending public money. We are making public policy.

Our work, therefore, should be carried on with a full respect for the public's right to know what we are doing and why we are doing it.

Open access to public information is more than just a goal in a democracy. It is the right of people in a democracy.

The public will support us when we are right and will deny us support when we are wrong.

To the public's right to know this users report is respectfully dedicated.

JOHN C. MACKIE
Highway Commissioner

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Mackinac County — 15 miles of
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IES IN BUREAU PLAN

1960 - A GIANT STEP FORWARD

THE 1960 HIGHWAY DEPARTMENT CONSTRUCTION PROGRAM WAS THE LARGEST IN its 55-year history. It brought into focus the first five-year program as longer and longer stretches of freeway were linked together.

During the year, nearly 200 miles of freeway and multi-lane highways were opened to traffic including 114 miles on the Interstate system, 62 miles of other freeways and 23 miles of multi-lane highways.

At the close of the year, 379 miles of the ultimate 1,079-mile Interstate system in Michigan were open to traffic with another 100 miles under construction.

In the past three and one-half years, the Michigan State Highway Department has increased its multi-lane highway system from 459 to 1,077 miles.

Progress of the program emphasized completion of the Interstate 94 Freeway from Detroit to the Michigan-Indiana border near New Buffalo. In December, a final link of the route was opened to traffic between Jackson and Ann Arbor to give Michigan's motorists a 203-mile stretch of toll-free Interstate highway, the longest in the nation. The freeway now links Detroit and Stevensville on Lake Michigan.

Another section of the Interstate 94 Freeway is now under construction from Stevensville to New Buffalo, a distance of 20 miles. It will be opened to traffic in 1961.

By late 1963, Interstate 94 will be completed from Port Huron to the Indiana state line via Detroit, a distance of 276 miles.

During 1960, Michigan awarded contracts for projects totaling \$320 million, including cost of right-of-way.

Other major construction projects during the year were concentrated on the following routes:

INTERSTATE ROUTES 96 AND 196, the Detroit-Muskegon Freeway. Seventy miles of this route are now open to traffic, 43 miles are under construction

and the remaining 76 miles will be placed under contract early in 1961. The entire route will be open to traffic by 1962.

OHIO-TO-SAULT STE. MARIE FREEWAY, a combination of US-23, Interstate 75, US-10 and US-27, a total distance of 385 miles. More than 150 miles of this route are now open to traffic, 181 miles are under construction and the remainder will be under contract in 1961 and opened in 1962.

LANSING-TO-MACKINAW CITY FREEWAY, a combination of US-27 and Interstate 75, a total distance of 224-miles. Fifty-three miles of this route are now open to traffic and the remaining 171 miles are under construction and will be open in 1962.

GRAND RAPIDS-TO-KALAMAZOO FREEWAY, nearly 34 miles of this route is now in use between Plainwell and Grand Rapids. In addition, all 5.5 miles of the freeway through Grand Rapids is now under construction. It is scheduled to be opened to traffic in 1962.

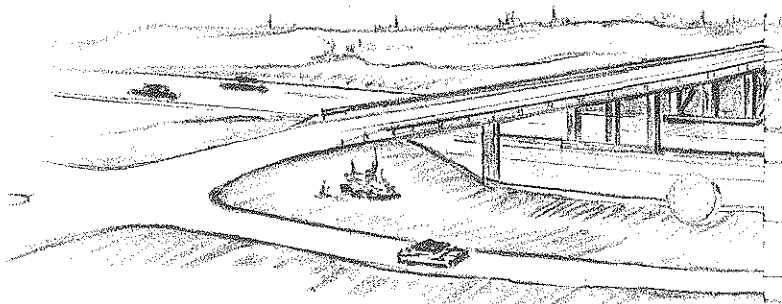
Eventually, this freeway will extend from the Michigan-Indiana state line north to Cadillac.

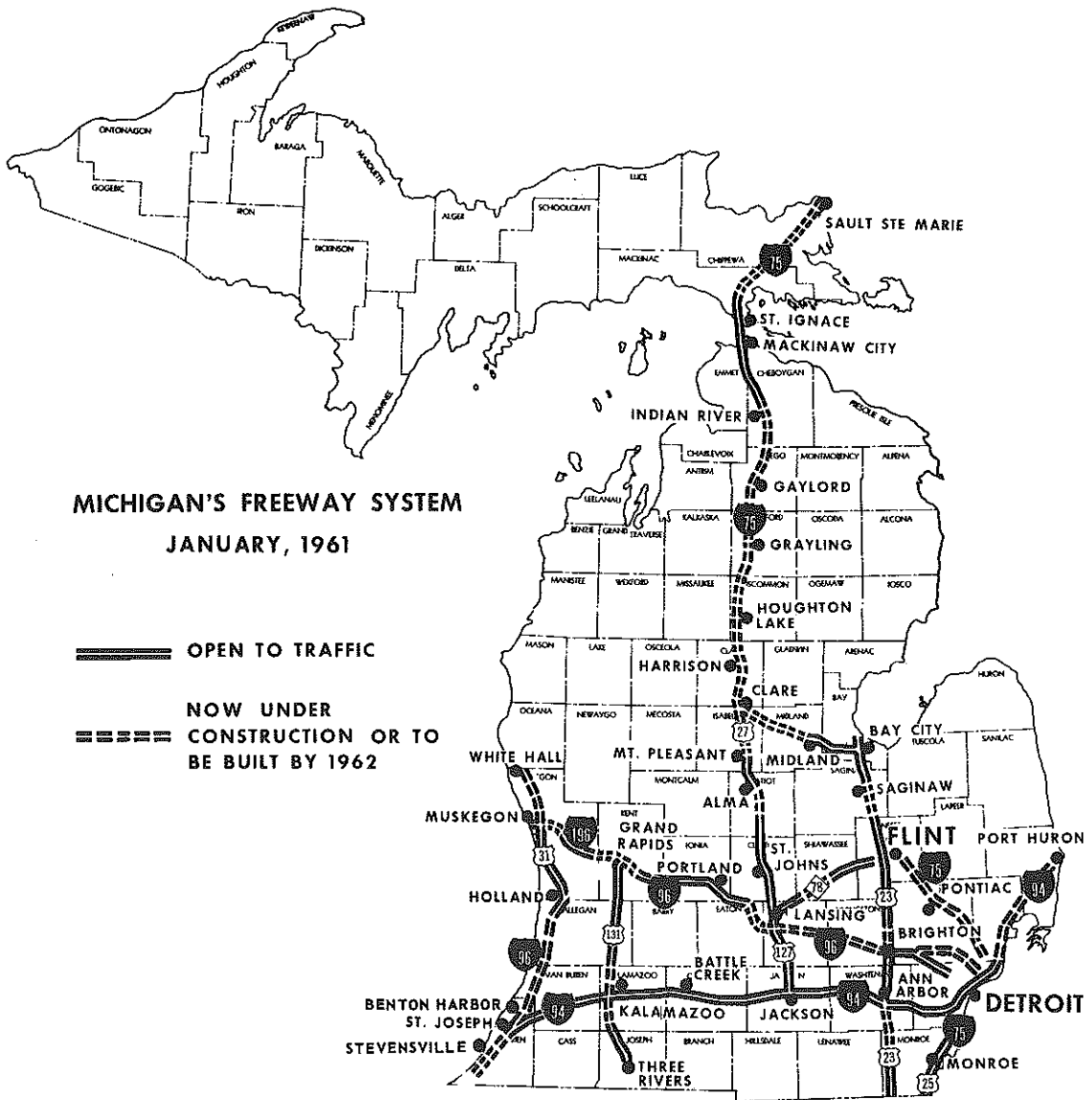
BAY CITY-TO-CLARE FREEWAY, or US-10, twenty-five miles now open to traffic between Bay City and Midland and the remaining 25 miles under construction from Midland to US-27 Freeway at Clare. The freeway will be open to traffic in mid-1961, and will carry a heavy volume of traffic from southeastern Michigan.

LANSING-TO-FLINT FREEWAY, or M-78, twenty-six miles of the freeway is now in use and the final 12 miles under construction and scheduled to be open to traffic in 1961. Eventually this freeway will be extended to Port Huron.

In 1961, the first five-year program will continue to connect Michigan's cities. Freeways will be placed under construction between Detroit and Port Huron, Mackinaw City and Sault Ste. Marie, Grand Rapids and Benton Harbor and Detroit and Flint.

An estimated \$210 million in contracts will be awarded during the year.

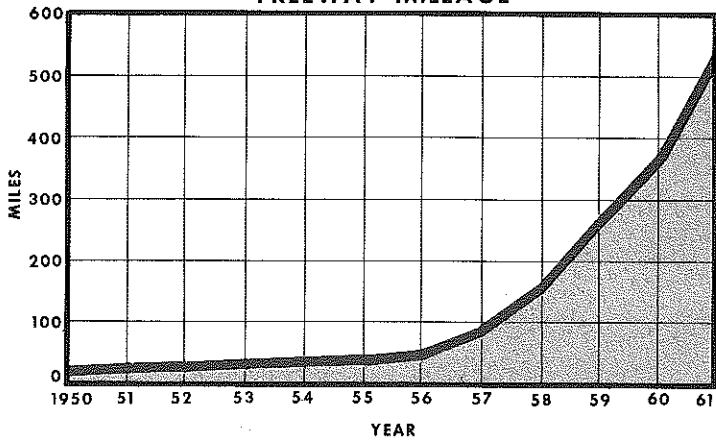




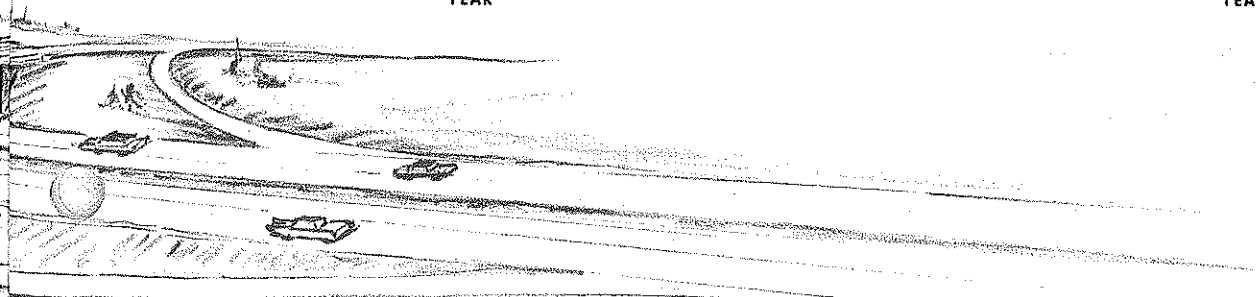
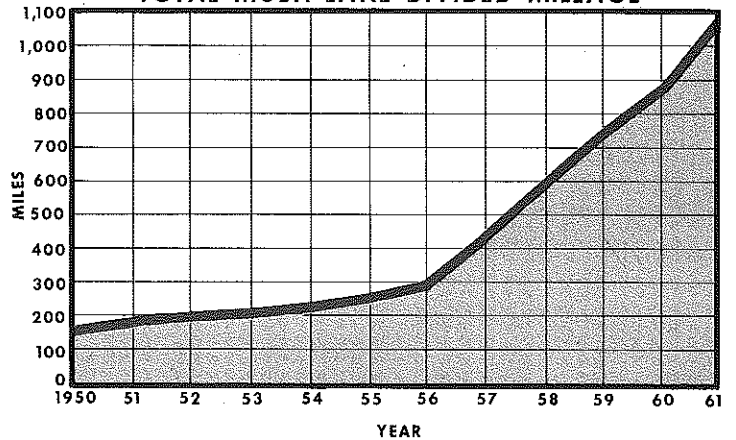
**MICHIGAN'S FREEWAY SYSTEM
JANUARY, 1961**

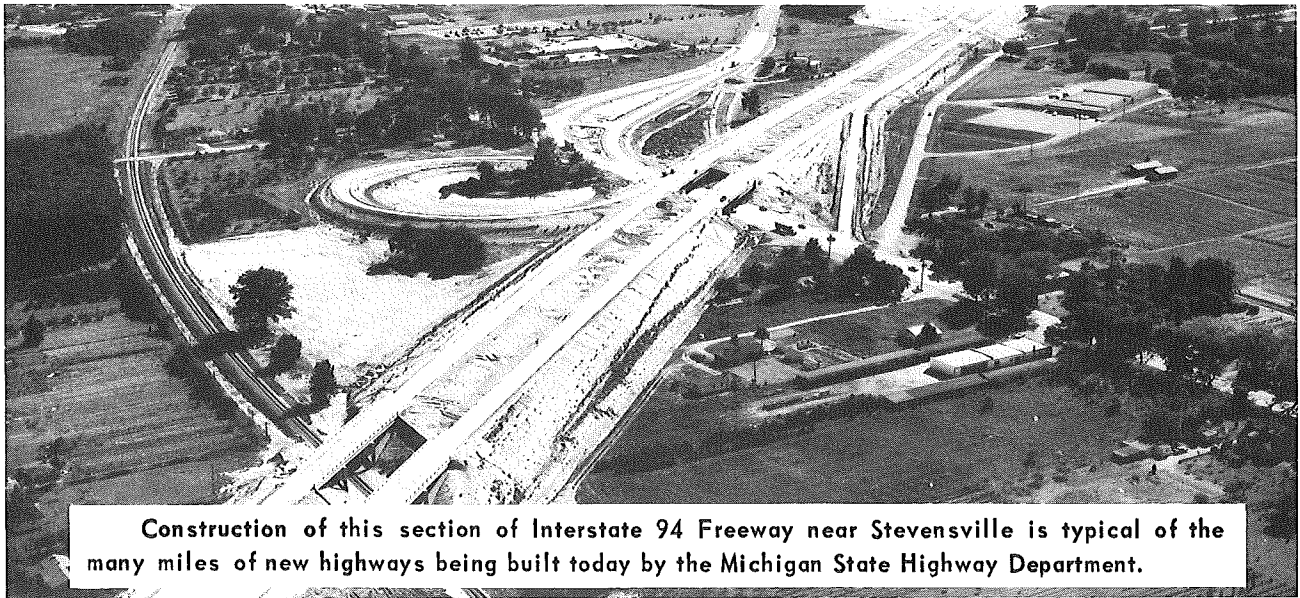
 OPEN TO TRAFFIC
 NOW UNDER CONSTRUCTION OR TO BE BUILT BY 1962

FREEWAY MILEAGE



TOTAL MULTI-LANE DIVIDED MILEAGE





Construction of this section of Interstate 94 Freeway near Stevensville is typical of the many miles of new highways being built today by the Michigan State Highway Department.

MICHIGAN'S 5 YEAR ROAD PROGRAM

MICHIGAN'S FIRST FIVE-YEAR ROAD BUILDING PROGRAM WAS "ON SCHEDULE" AS 1960 ended.

The program, announced in 1957, called for improvements on nearly 3,000 miles of state highways, construction of 900 miles of freeways to connect all of the state's major cities and paving of the remaining 814 miles of gravel roads on the state highway system.

Michigan was the first state in the nation to detail a long-range highway construction program.

During the first 3½ years of the program, the amount of freeway mileage in Michigan has increased from 101 to more than 550 miles, including 372 miles on the Interstate system.

In addition, more than 3,500 miles of other highways were modernized and more than 500 bridges and interchanges were built.

By the middle of 1961, contracts will be awarded for paving of the last mile of gravel highway in the state.

At the end of the year, 227 miles of freeways were under construction and work was underway on improving 369 miles of other highways.

Despite the scope of the first five-year program, it will still meet only about one-third of Michigan's total highway needs.

Augmenting the first five-year program, the Highway Department developed a second five-year program covering a period from July, 1962 to June, 1967.

It calls for expenditure of \$850 million mostly for freeways in and near Michigan's large cities including Detroit, Lansing, Grand Rapids, Flint, Saginaw and Battle Creek.

The second five-year program will lead the network of rural freeways into the hearts of Michigan's major cities besides providing alternate bypass highways.

Another major aim of the second five-year program is to relieve congestion in the cities.

Development of long range highway construction programs has a four point purpose. It is designed to:

1. Inform local governments what to expect in terms of state highway construction.
2. Inform the public where and when highway improvements are planned.
3. Let the construction industry know what to expect in terms of road building capacity.
4. Gear the Highway Department staff to a large construction program.

FINANCING MICHIGAN'S HIGHWAYS

ALL THE MONEY SPENT ON BUILDING AND MAINTAINING Michigan's 9,400 miles of state highways come from the people who use the highways.

There are four sources of revenue:

1. The State Motor Vehicle Highway Fund, which includes gas tax and license fees and a variety of miscellaneous fees. The state gas tax is six cents per gallon. The license plate fee, or weight tax, is 35 cents per hundred pounds for automobiles registered in Michigan.

2. Federal Aid, financed partly by Federal taxes on cars and trucks, which is appropriated by Congress and apportioned to the states by the U.S. Bureau of Public Roads.

3. Cost sharing in state highway improvements, in some cases, by counties and local communities from their share of the state gas and weight taxes.

4. Borrowing by the state through sale of bonds and pledging of future revenues to pay the debt.

Under Michigan law, no property taxes are levied for construction of state highways. Counties and municipalities may levy general taxes or spread special assessments for local service roads and streets. The Michigan constitution requires all state gas and weight tax revenues be used for highway purposes.

SOURCE
\$280 MILLION

EXPENDITURES
\$259 MILLION

MISCELLANEOUS
\$7,541,757

MISCELLANEOUS
\$2,448,057

LOCAL UNITS
\$5,803,839

ADMINISTRATION
\$5,017,795

BOND MONEY
\$58,877,017

DEBT SERVICE
\$22,097,729

MAINTENANCE
\$25,755,917

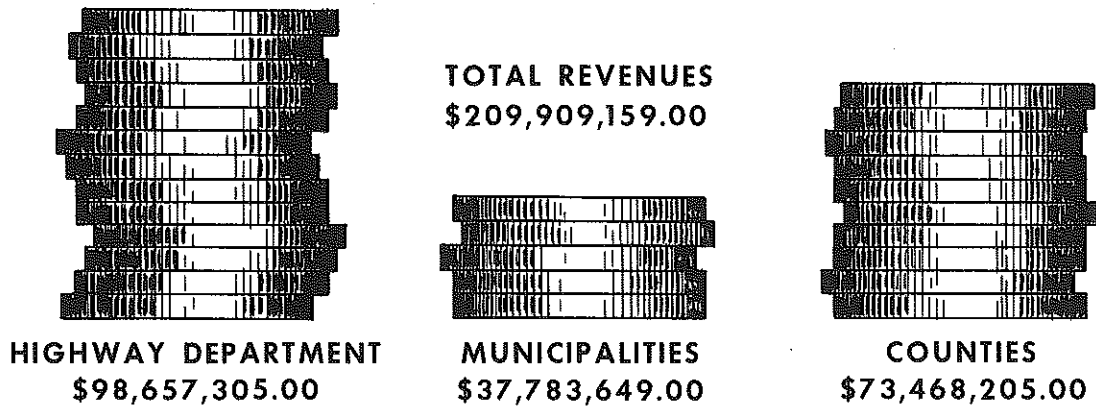
GAS & WEIGHT TAX
\$98,657,305

EARNED FEDERAL AID
\$109,189,208

CONSTRUCTION
\$203,323,859

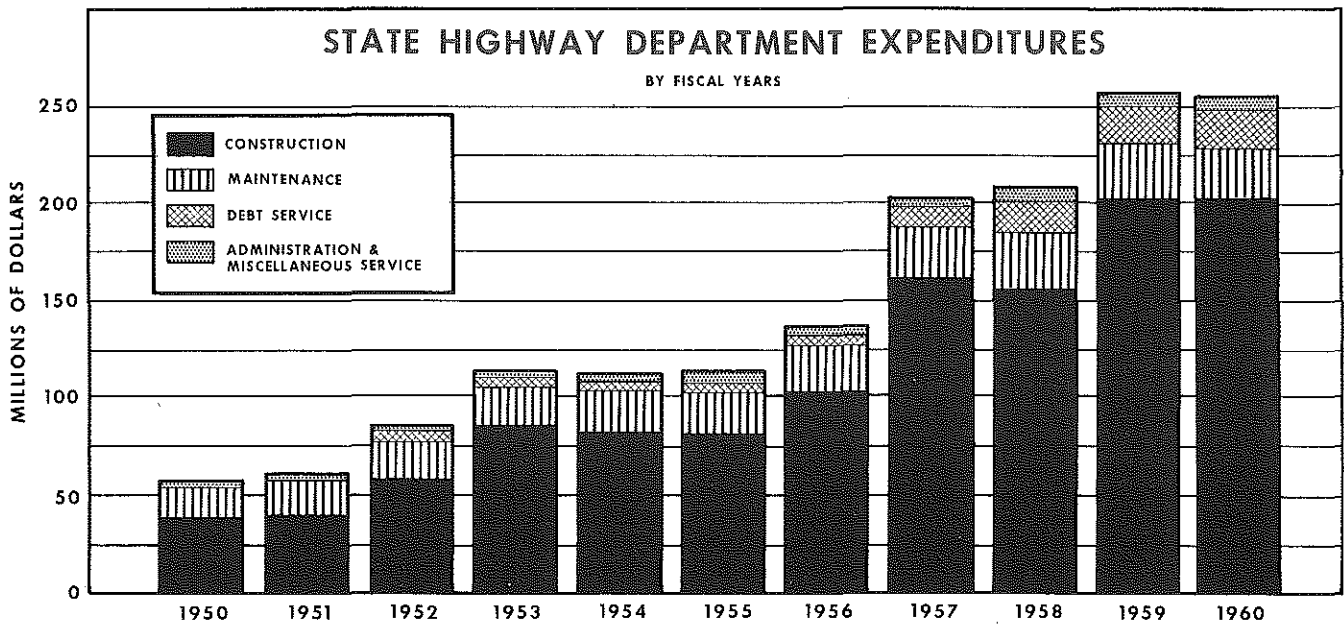
DISTRIBUTION OF MOTOR VEHICLE HIGHWAY FUNDS

FISCAL YEAR ENDED JUNE 30, 1960

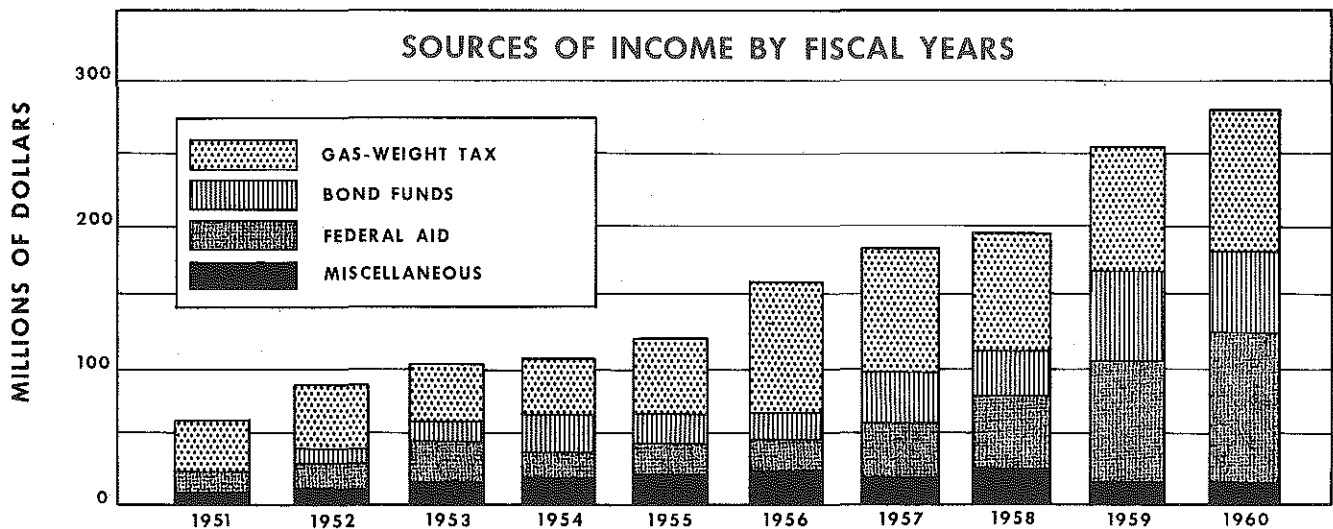


STATE HIGHWAY DEPARTMENT EXPENDITURES

BY FISCAL YEARS



SOURCES OF INCOME BY FISCAL YEARS





This bridge on the US-27 Freeway near Clare is typical of the \$44 million in structures completed or under construction in 1960. Included in the Bridge Division's work for the year were 153 grade separations, 57 bridges, 26 railroad grade separations and 24 county secondary road bridges.

FREEWAYS ARE A BENEFIT TO ALL

EVERY CITIZEN OF MICHIGAN WILL BENEFIT FROM THE NETWORK OF SUPERHIGHWAYS now under construction and already in use in the state.

Besides the immediate effect of greater safety and reduction in vehicle operating costs, Michigan's freeways will cast an economic shadow generations long.

Highway Department studies show that freeways generally reduce accidents by 70 per cent compared to the old roads they replace. The studies also show a one-cent per mile reduction in vehicle operation costs on freeways through less wear and tear involving braking and stop-and-go driving.

Some economic estimates indicate that the freeways will attract one million dollars in new business and industry for each mile--this is more than rural freeways cost originally.

Areas adjacent to freeways, especially near interchanges, will be the nuclei for the communities of tomorrow. They will mark the most favorable sites on which to locate the state's fast growing industrial, commercial, residential and recreational expansion--with a subsequent wave of rising land values.

The freeways will mold the work, play and living habits of Michigan citizens for generations to come.

An outstanding example of new land use near a freeway is an automobile plant on Interstate 96 in the Novi-Wixom area which employs about 5,000 men.

The plant in turn led to a \$40 million residential complex including 2,000 houses, a shopping center, restaurant and park and recreational facilities.

Generally vigorous real estate activity has been noted along sections of new freeways. The sequence of land values in some areas goes like this: about \$300 per acre as farmland--about \$1,500 per acre as undeveloped subdivision land--about \$57,000 per acre when subdivision construction is completed.

The new freeways will attract tourists--and 24 tourists a day results in an income comparable to a new manufacturing plant with an annual payroll of \$100,000.

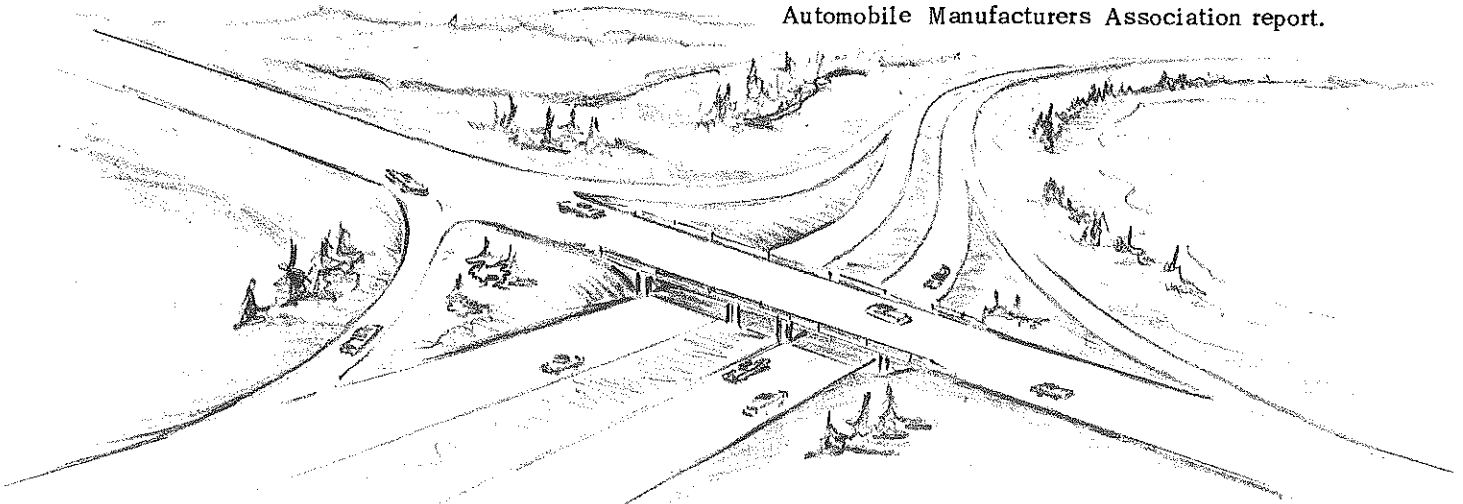
Downtown areas benefit by removal of through traffic opening up shopping areas to area residents. Experience has shown that urban bypasses can have a rejuvenating effect on business areas. Businessmen once opposed to bypasses in some places are now arguing for them.

It has been estimated that \$1 million in highway construction jobs will create on the site work for about 50 men with a weekly payroll of about \$5,000.

The economic loss to Michigan motorists in accidents, wasted time and extra operating costs has been estimated at \$270 million annually. The loss, caused by not having an adequate highway system, is greater per year than money spent to improve highways.

It has also been estimated that completion of Michigan's 1,079-mile Interstate Highway system, which makes up little more than 10 per cent of the state's 9,300 miles of highways, will save \$100 million annually in highway transportation costs.

Nation-wide completion of the 41,000-mile Interstate Highway system by 1980 will annually save an estimated 9,000 lives and \$12 billion in operating and accident costs, according to a recent Automobile Manufacturers Association report.



METROPOLITAN FREEWAY PROGRAM

DETROIT WILL BECOME ONE OF THE MOST ACCESSIBLE CITIES IN THE WORLD WITH COMPLETION OF THE STATE HIGHWAY DEPARTMENT'S FIRST AND SECOND FIVE YEAR PROGRAM.

The city will have more than 50 miles of freeways within its limits and will be the hub of a system which includes Interstate 75 north to Sault Ste. Marie and south to Toledo, Interstate 94 west to Chicago and north to Port Huron and Interstate 96 and 196 west to Muskegon.

Today, the city has nearly 24 miles of Freeway within its limits--nine miles of the John C. Lodge and almost 15 miles of the Edsel Ford. Only Los Angeles, California, with 36 miles has more freeway within its city limits.

Construction of a freeway system in and around Detroit is a vital part in Michigan's highway network. Over \$300 million was budgeted in the first five-year program for freeway construction.

Scheduled to be under contract or completed by 1962 in the Detroit area are:

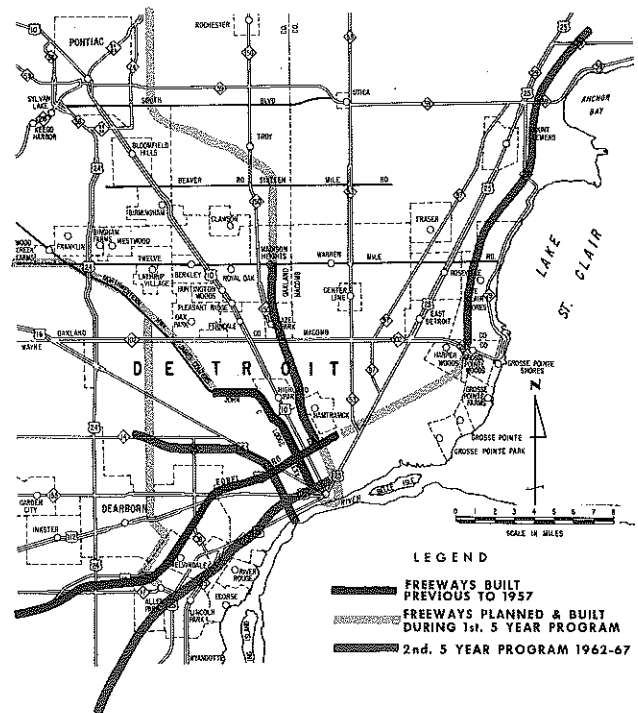
1. Extension of the Edsel Ford Freeway to Port Huron. Contracts are scheduled to be awarded in 1961.
2. Walter P. Chrysler Freeway from Jefferson Avenue to the Edsel Ford Freeway interchange. Construction now underway.
3. John C. Lodge Freeway extension along the present route of the James Couzens and Northwestern Highways to Telegraph Road in Oakland county. Work is now underway on this project.
4. A connection from the John C. Lodge extension at Northwestern and Telegraph westerly between 11 and 12-Mile Roads to the Brighton-Farmington Freeway. Contracts have been awarded on this project. It will become Interstate Route 696.

5. Conversion of 13 miles of Southfield from Interstate 94 north to Northwestern Highway. Work is now underway on this \$31 million job.
6. Interstate 75 from Stephenson near 11-Mile Road by-passing Pontiac on the east to a connection with the Fenton-Clio Freeway south of Flint. Work is also now underway on this freeway.

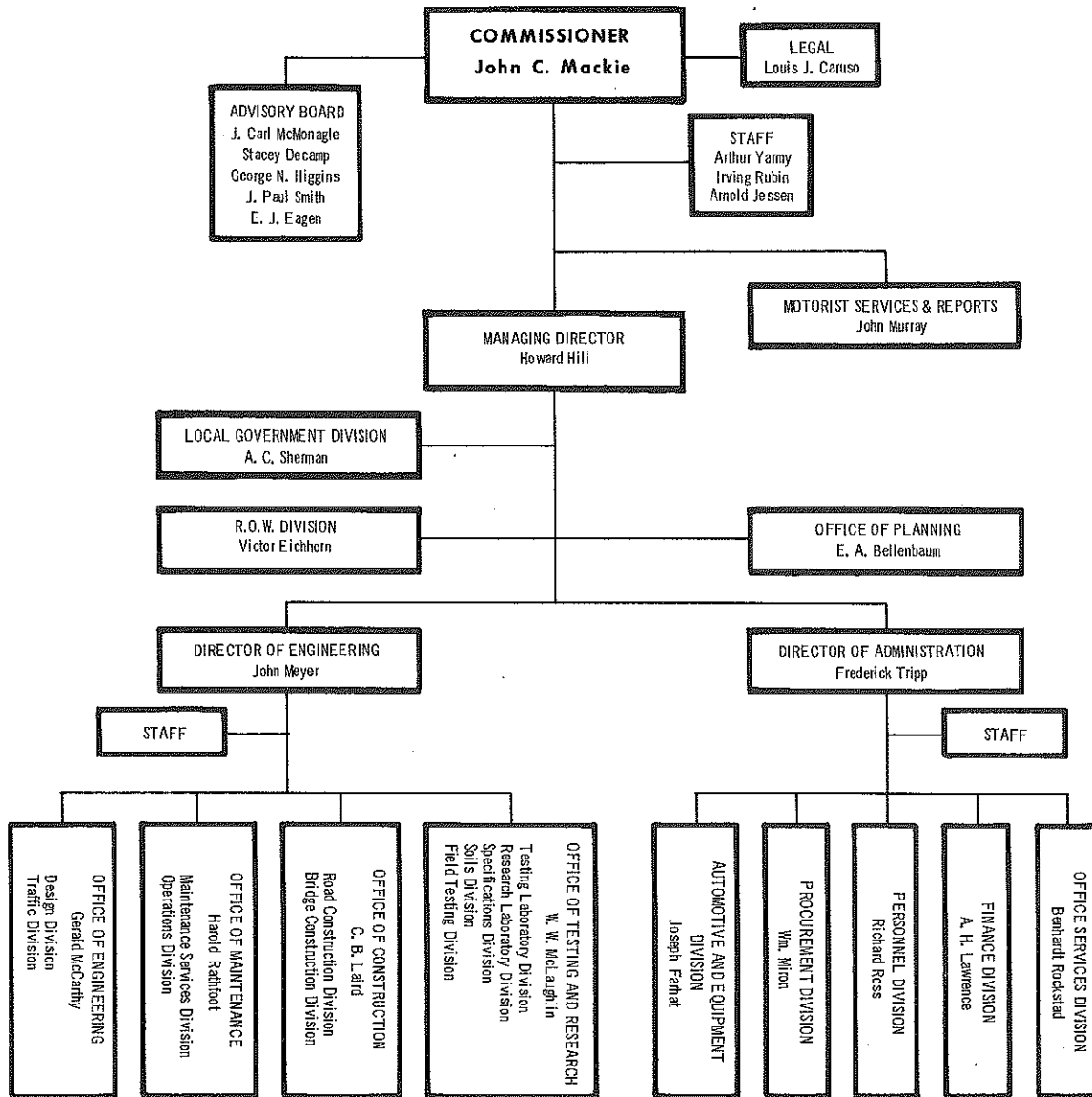
A second five-year program, which extends from July, 1962 to July, 1967, calls for nearly \$400 million of additional highway improvements in the Wayne, Oakland and Macomb county metropolitan complex.

Major projects included in the second five-year plan include:

- Construction of 15.4 miles of the Seaway Freeway, or Interstate 75, from its present terminus at Trenton to connect with the Chrysler Freeway.
- Construction of 6.1 miles of the Chrysler Freeway, also Interstate 75, from the Edsel Ford Freeway north to Eight-Mile Road.
- Start of construction on 10 miles of the Grand River Freeway, or Interstate 96, from the Ambassador Bridge to Plymouth Road.
- Widening of 13 miles of Eight-Mile Road from six to eight lanes divided from Southfield to Gratiot Avenue in Wayne, Oakland and Macomb counties.



MICHIGAN HIGHWAY DEPARTMENT ORGANIZATION



THE MICHIGAN STATE HIGHWAY DEPARTMENT WAS CREATED IN 1905 BY ACT OF THE State Legislature. For the first year, \$10,000 was appropriated to meet the cost of operations.

Since 1905, Michigan has had nine State Highway Commissioners, the first two appointed by the Governor, eight were elected and one was appointed to fill out a vacancy.

The first Highway Commissioner, Horatio S. Earle was appointed by Governor Fred M. Warner. He was followed by Townsend A. Ely, another appointee. Frank F. Rogers in 1913 became the first elected Highway Commissioner followed by Grover C. Dillman, Murray D. Van Wagoner and G. Donald

Kennedy. On December 30, 1942, Lloyd B. Reid was appointed to fill the vacancy caused by Kennedy's resignation.

Charles M. Ziegler followed Reid and John C. Mackie was elected to office in 1957. Mackie won a second term in the Spring election of 1961.

The Highway Commissioner is elected to a four year term and is vested with full charge over all roads built or maintained in the state. He is the sole reporting agent to the State Legislature on expenditures of funds by counties and cities on their roads and streets and for the approval of all such roads and streets which are part of the highway system.

STATE IN 10 HIGHWAY DISTRICTS

THE MICHIGAN STATE HIGHWAY DEPARTMENT HAS DIVIDED THE STATE INTO 10 DISTRICTS with an office and staff in each. The main headquarters are at Lansing. In addition, an Upper Peninsula office is at 701 Ludington, Escanaba; supervised by H. A. McPherson.

Location of the district offices, the district engineer and office manager, and the counties making up the district are:

DISTRICT 1, 336 Superior Avenue, Crystal Falls; R. F. Rosatti and Peter Petroff; Keweenaw, Ontonagon, Gogebic, Iron, Houghton, Baraga, Marquette, Dickinson and Menominee.

DISTRICT 2, 405 Newberry Street, Newberry; T. E. Anderson and F. A. Randolph; Alger, Delta, Schoolcraft, Luce, Chippewa and Mackinac.

DISTRICT 3, 100 East Chapin, Cadillac; K. L. Baguley and L. J. Mathieu; Charlevoix, Antrim, Leelanau, Benzie, Grand Traverse, Kalkaska, Manistee, Wexford, Missaukee, Mason, Lake, Osceola and Clare.

DISTRICT 4, 803 Chisholm, Alpena; Frank Deschamps and Anthony Popp; Cheboygan, Emmet,

Presque Isle, Otsego, Alpena, Montmorency, Crawford, Alcona, Roscommon, Ogemaw and Iosco.

DISTRICT 5, 11 Fuller S. E., Grand Rapids; J. G. Hautala and E. S. Paloski; Oceana, Newaygo, Mecosta, Isabella, Muskegon, Kent, Ottawa, Montcalm, Ionia, Gratiot and Clinton.

DISTRICT 6, 203 N. Jefferson, Saginaw; Edward Upson and David Pell; Gladwin, Arenac, Midland, Bay, Saginaw, Huron, Tuscola, Sanilac, Lapeer, Genesee and Shiawassee.

DISTRICT 7, 7545 S. Westnedge; Paul Perkins and William Skidmore; Allegan, Barry, Van Buren, Kalamazoo, Calhoun, Berrien, Cass, St. Joseph and Branch.

DISTRICT 8, 2900 Clinton Road, Jackson; Samuel Cardone and John Kishpaugh; Eaton, Ingham, Livingston, Jackson, Washtenaw, Hillsdale and Lenawee.

DISTRICT 9, 926 Featherstone Road, Pontiac; J. A. Wills and James Boyd; Oakland, St. Clair and Macomb.

DISTRICT 10, 17405 Lahser Road, Redford; C. H. Brown and Donald Lindell; Wayne and Monroe.

IMPROVED METHODS REDUCE COSTS

THE HIGHWAY DEPARTMENT HAS A CONTINUING EMPHASIS ON IMPROVING METHODS to reduce costs. In 1960, more than one-quarter million dollars was saved by increased per capita production of employees, standardizing operations, better utilization of facilities and introduction of new methods for increased efficiency.

Some examples of savings made in the past year include:

---Nearly \$55,000 by methods which reduce the size of plans sold to contractors so they can bid on highway projects.

---Over \$100,000 through expanded use of Bendix Computers for engineering calculations.

---\$29,000 through establishment of a work measurement program in the Blue Print, Photostat and Duplicating Sections.

---Nearly \$4,000 in postage by using more economical mail services and a "Pony Express" service carrying bulk deliveries to and from district offices.

---Nearly \$28,000 in increased use of existing office furnishings and other equipment through the efforts of a Property Survey Board.

Additional savings in man-hours and printing costs will be made each year because the program permits annual map revisions rather than new maps. Further studies are also being made to standardize various atlases used within the department by using a common base.

PLANNING DIVISION GUIDES NEW NETWORK

THE WORK OF THE HIGHWAY DEPARTMENT'S PLANNING DIVISION HAS MANY FACETS. Its major efforts in the past year have been to develop trunkline plans for the many urban areas in Michigan.

It is the policy of the Highway Department, as established by Highway Commissioner John C. Mackie, that no major projects are to be scheduled in an urban area unless a mutually acceptable trunkline plan has been developed by the city concerned and the Highway Department.

This assures construction of a functioning highway system, rather than a disjointed hodge-podge of roads that are soon deficient and obsolete.

In this manner, Michigan's motorists are guaranteed a statewide highway network that will be of maximum benefit.

A traffic study is the first step in the development of any trunkline study. This can vary from a "card study" and origin-destination study, which determines volume, direction and origin and destination of traffic, to a full-scale study where a team of interviewers visit various houses to obtain a sampling of driving habits.

Information gathered by the studies is tabulated and analyzed by the Planning Division before it is used in the development of a trunkline plan.

In the Past year, basic data from studies at Ann Arbor, Ypsilanti, Adrian, Benton Harbor and St. Joseph were analyzed.

In addition, 47 origin-destination studies were tabulated and made available for use in developing urban trunkline plans.

Another phase of the Planning Division, the rural corridor report, is just as vital to the statewide highway system. This study determines the general alignment of routes between cities and indicates desirable features of connecting highways. Such reports in 1960 were completed or in progress for the following routes:

- US-131 from Rockford to Cadillac.
- Interstate 75 from Kawkawlin to Grayling.

- US-127 from Lansing to Mason.
- M-21 from Flint to Port Huron.
- US-223 in Lenawee and Monroe counties.
- M-89 in the Richland area.
- M-134 in Mackinaw county.

IN ADDITION TO THE FUNCTION OF BUILDING HIGHWAYS AND MAINTAINING THE EXISTING system, the Michigan State Highway Department also has the responsibility of operating a vast highway network in a safe and efficient manner.

This phase of the Highway Department's responsibility most directly affects the public because it imposes the controls which determine the manner in which the public operates his vehicle.

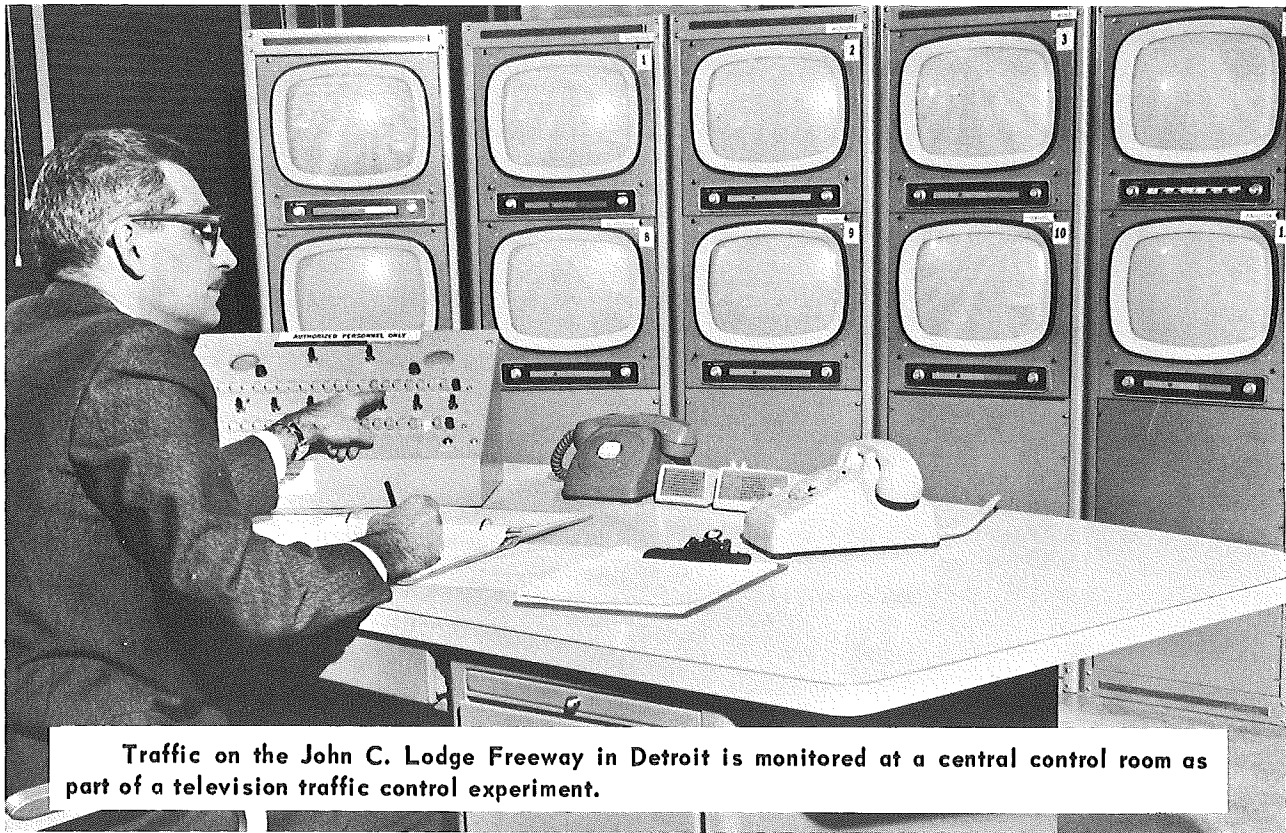
These controls are made known to a motorist through the use of three major categories: signs, signals and pavement markings.

In 1960, more than \$1 million was spent on fabrication and erection of signs and signals, and another \$1.2 million in sign and signal work was authorized.

Actual reconstruction is sometimes necessary to correct a traffic hazard, particularly at intersections. An operational betterment program was devised for this purpose. In 1960, 23 operational betterment projects were completed or placed under contract at a contract price of about \$850,000.

Ninety locations on various trunklines were improved in 1960 by a roadside control program which includes placement of guard rails, curbs and islands at potential traffic friction points. More than \$150,000 was spent on this program.

To gather data for use in determining the type and method of control to be applied to any particular trouble spot requires that a great number of traffic surveys be taken. During 1960, traffic volume counts were taken at 5,000 locations and studies determining the movement of vehicles and pedestrians were conducted at 550 locations.



Traffic on the John C. Lodge Freeway in Detroit is monitored at a central control room as part of a television traffic control experiment.

STATE PIONEERS TV TRAFFIC CONTROL

A PIONEERING EFFORT TO STUDY AND CONTROL FREEWAY TRAFFIC THROUGH USE OF television is now underway in Michigan.

The project's aim is to allow highway engineers to gain information about driver behavior under all conditions, which will result in better design of future freeways.

At the same time, experience gained in the experiment is expected to be used in development of television traffic control systems throughout the country.

Already in operation are 14 TV cameras mounted on overhead bridges on a 3.2-mile section of the John C. Lodge Freeway near downtown Detroit.

Scheduled for installation this summer are 11 sets of overhead lane and speed control signals and nine "Ramp Closed" signs.

Pictures from the 14 cameras will be monitored at a central control room and the lane, speed and

ramp signals will be controlled by push-buttons by traffic experts 24 hours a day.

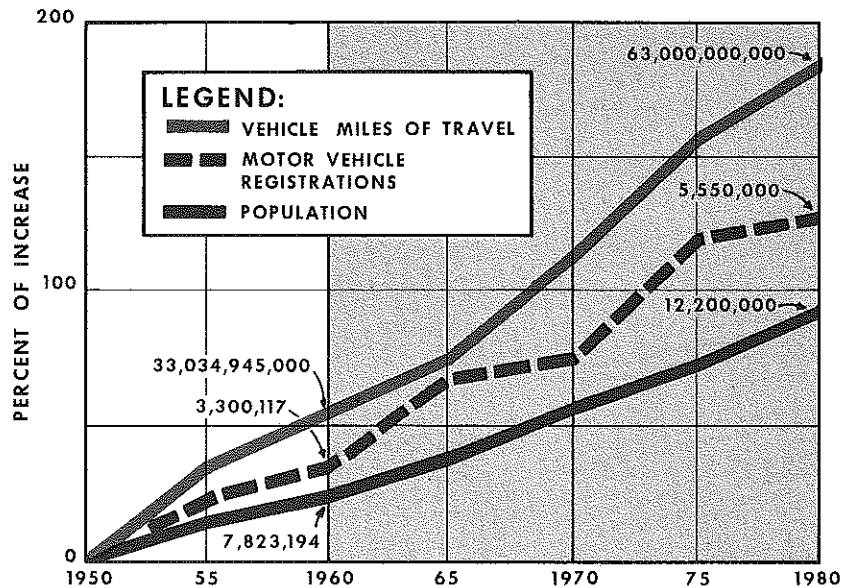
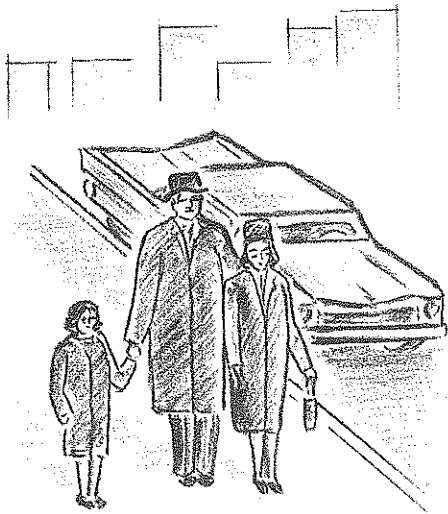
If an accident or other emergency occurs on the freeway, the operator can instantly close a lane or lanes, change the speed and close appropriate ramps to keep additional vehicles from adding to the congestion.

The \$400,000 project is being jointly financed by the U.S. Bureau of Public Roads, the State Highway Department, the City of Detroit and Wayne County.

Installation of the cameras called for 11.5 miles of video cable to carry closed circuit TV pictures and 239 miles of control wire. The cable is installed on the median and attached to guard rail posts.

The lane and speed control signals are similar to those in use at the Mackinac Bridge. A series of experiments to determine the most effective size, color, symbol and type and intensity of illumination for the signals is being completed.

PEOPLE, CARS AND TRAVEL DETERMINE ROAD NEEDS



This graph shows the percent of increase in population, motor vehicle registrations and motor vehicle travel--the three factors which produce the need for new roads. In 1950, the state's population was 6.3 million, vehicle registrations were 2.4 million and travel miles were over 22 billion.

By 1960, the population increased 23 percent and vehicle miles traveled increased by 54 percent. The graph illustrates that both travel and vehicles increased at a much faster rate than population. The projections to 1980 show this trend can be expected to continue---increasing the need for new highways.

EXCESS PROPERTY SALES

IN THE PAST YEAR, ALMOST \$1.5 MILLION HAS BEEN RECOVERED FOR HIGHWAY CONSTRUCTION through an aggressive excess property disposal program.

Since the program was started early in 1959, more than 500 parcels were sold at 118 public auctions and negotiated sales for a total return of about \$2.3 million--enough to build almost five miles of rural freeway.

The land disposal program is designed to promote sale of unneeded properties acquired through the years during right-of-way acquisition. Many are remnants of parcels used for construction.

Some of the parcels were acquired in the 1920's.

After properties have been declared surplus, they are offered first to local governments for

public use; if not wanted, the properties are then offered at public auction.

The Highway Department is now reviewing its holdings in all 83 Michigan counties. There are an estimated 2,000 parcels valued at about \$15 million.

Besides recovering highway funds, the program takes into account the Highway Department's responsibility to local communities in restoring as rapidly as possible land usage disturbed by highway construction.

Most sales to local and state units of government have been for recreational, educational or public utility purposes.

Others have stimulated business and industry by making land available for new buildings and expansion of existing plants.

MAINTENANCE

THE STATE HIGHWAY DEPARTMENT'S MAINTENANCE EXPENDITURE IN 1960 WAS APPROXIMATELY \$23.7 million for work on the equivalent of about 13,000 miles of highways and streets and 350 of 1,900 State Highway bridges and interchanges.

Snow removal and ice control for the five winter months cost \$8.5 million with the March being the most costly—when \$2.1 million was spent for ice and snow control.

Almost 135,000 tons of rock salt and 8,762 tons of calcium chloride were used during the five months to keep trunklines clear for the motoring public.

Nine pavement marking crews were kept busy from early spring until late fall marking 7,000 miles of roads. They used more than 152,000 gallons of white, yellow and black paint which was mixed with about 700,000 pounds of reflector glass beads.

In 1960, maintenance garages were completed at Marshall, and Battle Creek and construction started on garages at St. Ignace and Coldwater.

Storage buildings at garage sites at Charlotte, Hillman, L'Anse and Kalamazoo were completed during the year with similar structures placed under construction at Paw Paw and Hastings.

Maintenance contracts were renewed with 64 of Michigan's 83 counties and with 173 municipalities.

Contract counties and municipalities perform maintenance work on state trunklines with their own personnel and equipment and are reimbursed by the Highway Department.

In the remaining 19 counties, Highway Department crews and equipment perform maintenance operations.

RIGHT OF WAY

IN THE PAST FISCAL YEAR, THE MICHIGAN STATE HIGHWAY DEPARTMENT'S RIGHT-OF-WAY PURCHASES WERE OVER \$35.6 million.

It was the most ever spent for land in one year by the Highway Department and involved over 6,000 properties.

By comparison, right-of-way costs in the 1959–1960 fiscal year was almost nine times as much as the \$4.2 million spent for land 10 years earlier in the 1949–1950 fiscal year.

The many new miles of freeways being built in Michigan has materially increased total expenditures for right-of-way.

A modern freeway requires a 300-foot right-of-way to provide for two 24-foot traffic lanes, 10-foot outside shoulders, eight-foot inside shoulders plus a dividing median strip.

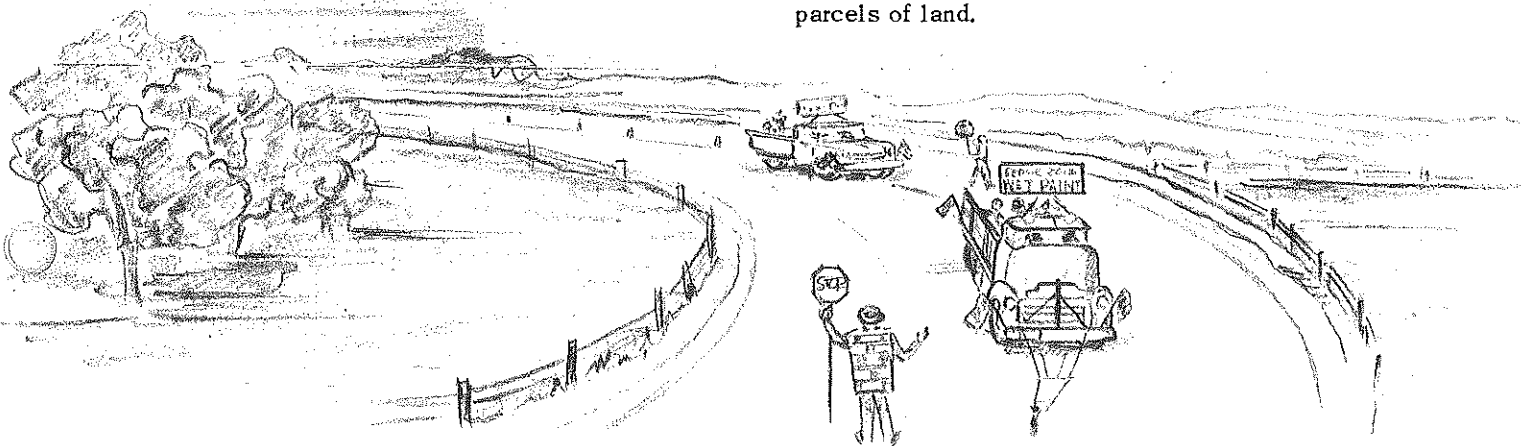
In 1927, an 80-foot right-of-way was satisfactory. It provided for a paved roadway 14 to 20 feet wide and seven foot shoulders.

In other words, 36.4 acres of right-of-way are now required for a mile of modern highway compared to 9.7 acres only 30 years ago.

Since the Interstate Highway program was started in 1956, 378 miles of new right-of-way has been acquired for the system at a cost of \$48,150,000.

The Highway Department's Right-of-Way Division's efforts in the past fiscal year were centered on projects having a combined length of more than 675 miles. Individual projects varied from several miles of new highway to a few feet for a clear vision corner.

In the first six months of 1960 alone, the Highway Department acquired interests in over 11,500 acres. It required handling of over 3,000 separate parcels of land.



did you know?

---Michigan has 377 miles of toll-free Interstate highways built to standards adequate for 1975, more than any mid-western state.

---All state highways in Michigan will be paved by the end of 1962. Michigan's current five-year program calls for paving of the remaining 814 miles of gravel highways and since 1957 more than 600 miles were paved and another 150 miles are under construction. Contracts for paving the last mile will be awarded before June, 1961.

---The Bridge and Road Design division of the Highway Department completed plans for work totaling \$236 million in 1960, including plans for 291 bridges, 330 miles of freeway, 233 miles of two-lane roads and more than 750 miles of highway modernization work. On the drawing boards at the end of the year was another \$305 million in new plans.

---The Purchasing Section of the Procurement Division annually buys about 10,000 different objects from A to W--abrasives to wax.

---Highway Department survey crews completed over 400 land surveys in 1960, with another 114 in progress at the end of the year.

---Michigan will get nearly \$600,000 more in federal funds for highway construction during the 1962 fiscal year because of its population increase during the last 10 years. Michigan's population rose from 6.3 million to 7.8 million during this period. The federal funds are allocated on a basis of highway mileage and population.

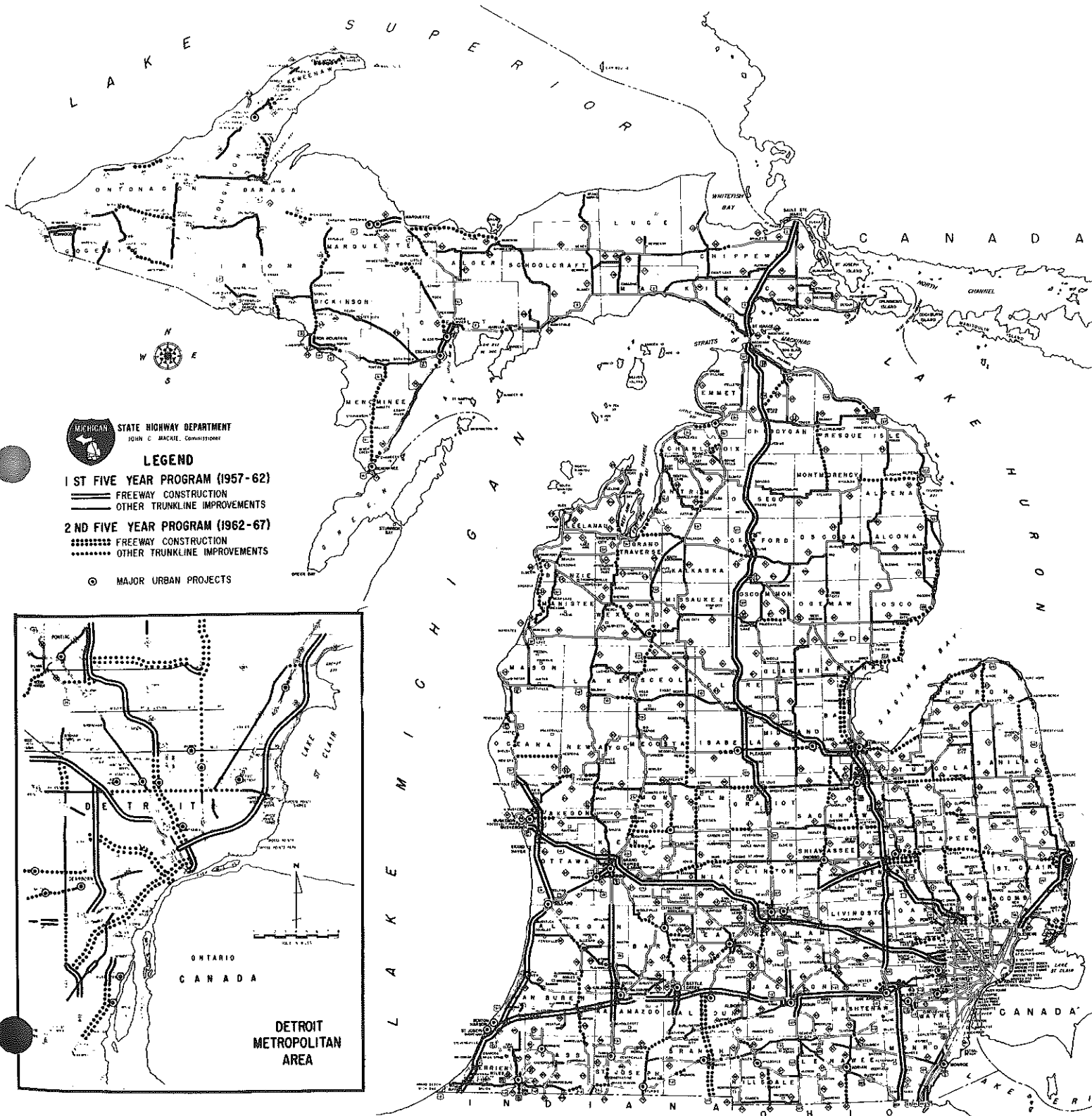
---Training of all types is a constant factor in the Michigan State Highway Department's daily operation. Some typical examples include a three-year work-study program operated by the Personnel section to train specialists in surveying, inspection and drafting; sessions by the Road and Bridge Construction Divisions to upgrade and develop new inspection and engineering techniques; supervisory and management seminars to review and improve management techniques; a Testing and Research Division inspection school for quality control of all factors in the production of concrete and asphalt pavements; a first aid program operated by the Highway Department's Safety section to teach employes how to treat their injuries and to create an awareness of safety at all times; a Right of Way Division school to improve the highly specialized skills of land buyers and appraisers; computer clinics to promote the use of computers in all Highway Department divisions.

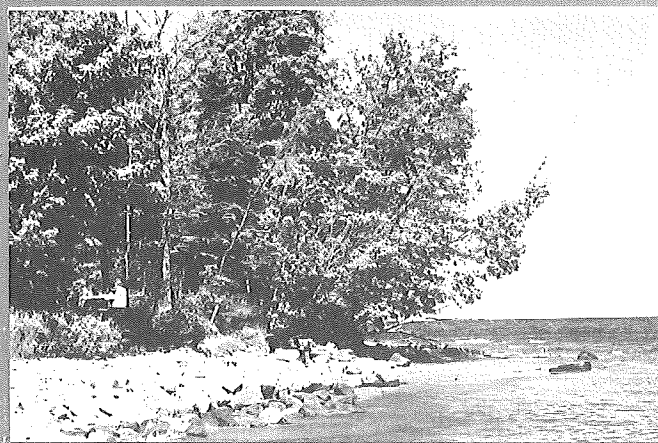
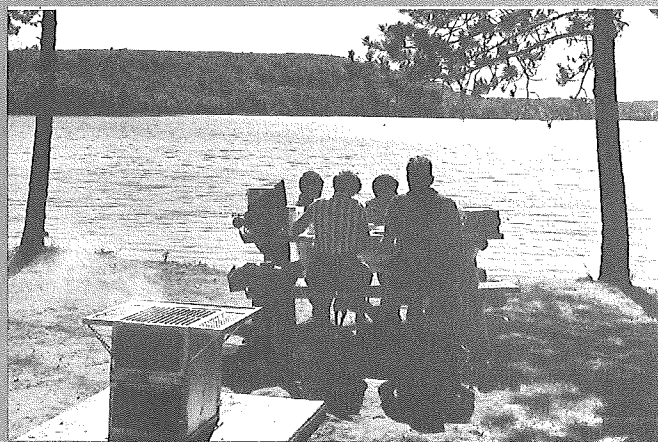
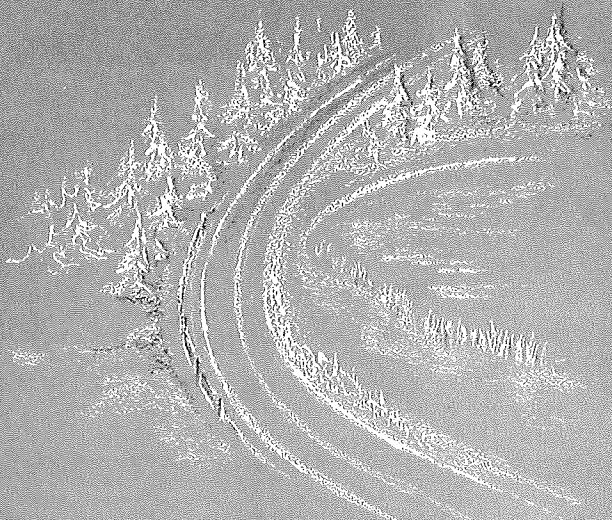
---The Records and Reports section of the Motorist Services and Reports Division keeps track of the construction history of the state's 9,400 miles of highways by breaking them down into five-foot sections.

---The Highway Department held public hearings on the last rural sections of the ultimate 1,079-mile Interstate highway system during 1960. The hearings are required by law and allows persons to voice their objections to a highway's proposed route.

---The Michigan State Highway Department owns, maintains and operates over 3,300 vehicles and special equipment ranging from lawn mowers to giant bulldozers. Thirty-five garages and sub-garages are scattered throughout the state to house and maintain the equipment. Total value of the equipment is over \$6.5 million.

This map shows Michigan's highway future through 1967. By that time more than \$2 billion worth of new and improved highways will be in use. State Highway Commissioner John C. Mackie has announced a second-five year program calling for nearly \$850 million worth of improvements from 1962 to 1967. The first five-year program--1957 to 1962--called for expenditures totaling \$1.25 billion.





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