



Michiganite

FALL 1987

VOLUME XXII, NUMBER 3

OFFICIAL PUBLICATION OF THE MICHIGAN SECTION OF THE INSTITUTE OF TRANSPORTATION ENGINEERS



PRESIDENT'S COLUMN

FROM THE DESK OF . . .

DON WIERTELLA

NEW YORK WAS OUR KIND OF TOWN! The 57th Annual Meeting of the Institute was conducted in the "BIG APPLE" with headquarters at the new Marriott Marquis. The meeting was an excellent combination of technical programs and extra curricular activities.

The annual meeting technical program was developed to provide a wide range of topics from traffic operations and site development impacts to urban congestion problems. I enjoyed the presentations in general and the mock trail in particular. To those who attended the annual meeting, I suggest that you send comments, both pro and con, to our headquarters staff. These comments will help shape future technical programs.

Extracurricular activities from the "get acquainted party" to the banquet allowed myself many opportunities to converse with Institute members from many Sections. The streets of New York, especially China Town, offered a vivacious combination of sights, sounds and smells. The activities for spouses were varied, colorful and well planned; but really, how could any organization have a poor spouse's program in New York City.

Of special interest to the Michigan Section was the recognition luncheon, the elected leadership breakfast and the results of the election for a new international vice-president.

At the recognition luncheon, I accepted, on behalf of our Section, an award certificate for our newsletter the MICHIGANITE. The Michiganite was selected as the recipient of the 1987 District/Section Newsletter Award in Category B (250-500 circulation).

See *PRESIDENT . . . page 2*

Michiganite A Winner

Michiganite Editor, Weldon Borton, was notified in July that our quarterly publication had been selected as the recipient of the 1987 ITE District/Section Newsletter Award (category B, 250-500 circulation). Our Section President, Don Wiertella, accepted the award on behalf of the Michiganite during the 57th annual meeting in August. The award was presented at the Institute's Recognition Luncheon held in the Broadway Ballroom of the New York Marriott Marquis. Other winners included the Australian Section Newsletter (category A, under 250 circulation) and the Westernite (category C, over 500 circulation).

Congratulations and many thanks to Weldon and all who contributed articles and personal time in producing the Michiganite. We can continue to produce a high quality newsletter, but wider membership involvement is needed. Please feel free to submit articles and ideas and/or volunteer your time.



Michigan Section President Don Wiertella accepts Newsletter award from International President Walter H. Kraft

MICHIGANITE

Official Publication of the
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Institute of Transportation Engineers

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MICHIGAN SECTION - I.T.E.
TREASURER'S REPORT

BALANCE:	June 29, 1987	\$ 6,235.47
RECEIPTS:		
	Dues	412.00
	Interest	83.46
	Meetings	504.00
		<u>\$ 999.46</u>
EXPENSES:		
	Meetings	\$ 639.37
	Michiganite	832.00
	Postage	10.56
	Printing	84.34
	District Contribution	154.50
	National Meeting Expenses	530.00
	Other	20.00
		<u>\$(2,270.77)</u>
BALANCE:	September 23, 1987	<u>\$ 4,964.16</u>

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Joseph Meszaros	517/373-2334

MICHIGANITE is published quarterly by the Michigan Section of the Institute of Transportation Engineers. It is distributed to more than 300 ITE members and over 100 cities and counties in Michigan. Address communications regarding the Michiganite to the Editor, Joseph Meszaros, 11310 Flintrock, Grand Ledge, Michigan 48837, telephone: 517/627-6308.

PRESIDENT . . . continued from page 1

This award speaks very well of our section and of the hard work of Editor Weldon Borton and Bob Lariviere.

The elected leadership breakfast was conducted to produce more discussion and input from district and section officers. Several weeks prior to the annual meeting each officer was requested to submit topics for discussion at the breakfast meeting. After short reports by President Walter Kraft and Executive Director Tom Brahms, the floor was opened to discussion of these topics. Although we did not cover all the items, we did discuss new areas of concern and touched on and rehashed some "Old Chestnuts."

See PRESIDENT . . . page 3

1987 MEETING SCHEDULE

<u>Date</u>	<u>Location</u>	<u>Host</u>	<u>Event</u>
12/03/87	Holiday Inn Southfield and Ford Road	Kobran	Annual Meeting/Technical Session

1988 PRELIMINARY MEETING SCHEDULE

<u>Date</u>	<u>Location</u>	<u>Event</u>
02/04/88	Ann Arbor Holiday Inn	Lunch/Technical Session
03/18/88	Lansing Midway Motor Lodge	Lunch/Technical Session
04/22/88	Frankenmuth	Couple's Night/Friday-Speaker
05/19/88	Southfield	Vendor's Day
06/09/88	Canton Township	Golf/Dinner
06/29/88	Chicago	Joint District 3 & 4 Meeting
07/01/88	MSU	Lunch with two speakers - tour of Cyclotron
Mid-July		
07/23/88 & 07/24/88	Mt. Pleasant	Technical Meeting/Family Weekend
09/08/88	Saskatoon Grand Rapids	Golf/Dinner
09/25/88 thru 09/29/88	Vancouver	National Meeting
10/20/88 & 10/21/88	Greenfield Village Henry Ford Museum	District III Annual Meeting
12/01/88	Detroit Area	Section Annual Meeting & Technical Session

PRESIDENT . . . continued from page 2

A new area of concern was the future of the transportation profession. The profession is losing large numbers of transportation educators and practitioners to retirement. This gap is not being filled with young men and women trained in the transportation field, ready to tackle future transportation problems.

Reoccurring concerns regarding the relationship between sections, districts and headquarters and the cost of meetings were covered. As usual, the Michigan Section made its views known.

The results of the election for international vice-president were announced at the annual business

meeting. Michigan Section's favorite son, Dick Beaubien, was not elected. Our new Vice-President is James L. Pline.

Mr. Beaubien, your loss in this election was only a one year delay in your becoming the next International Vice-President. The Section's Executive Board, the Section's members and all of District III are solid in your support and sincerely hope you will put your "hat in the ring" for the next election.

This issue of the Michiganite will be the last one put together by Editor Weldon Borton. Weldon is leaving, not because he had problems with the spelling of certain names, but due to pleasant commitments. Weldon will be spending the winter in the "Sun Belt" and future summers in the "Rust Belt." Best wishes my friend. ■

Setting The Agenda

As transportation professionals, we have a responsibility to take a lead role in setting the agenda to address transportation issues. We do not have to just sit back and live with decisions made without the benefit of our input. When it comes to transportation issues, we can make a difference by speaking out. Sharing our knowledge and experience is not only our right, it is our duty.

Consider, for example, the recent action by the U.S. Office of Management & Budget (OMB) to delete key transportation questions from the 1990 U.S. census. Responding to the Institute's call to action, concerned transportation professionals eloquently expressed their opposition to OMB and to their Congressional delegations. Responding to this massive outpouring of concern, the OMB modified its 1990 U.S. census proposals, and these key transportation questions will be included in the next national census.

In the coming months, the transportation professional will be given a number of opportunities to provide answers to questions which are of vital importance to the future of the profession:

- With the Interstate system nearing completion, what new legislative thrusts should be considered to address the transportation needs of the future?
- With the 1987 Surface Transportation Act expiring in 1992, what should be included in the next federal-aid highway/transit program?
- What should the federal government's role be in addressing traffic congestion?

Planning is beginning now to develop the framework for a new federal-aid surface transportation program designed to address these questions and the future transportation needs of the United States. The largest effort is being spearheaded by

the American Association of State Highway & Transportation Officials (AASHTO). Dubbed the "Transportation 2020 Consensus Program", this program is designed to enable state and local officials, private industry, and public interest groups to work together to:

- Assess the nation's surface transportation requirements through the year 2020.
- Develop alternative proposals for meeting those requirements at the federal, state, and local level, and
- Achieve a consensus on the best means of doing the job.

The first phase of the 2020 program effort is the assessment of the nation's surface transportation needs. Hearings are now being conducted in each state. The hearings are being coordinated by the Advisory Committee on Highway Policy - led by the Highway Users Federation. These hearings will continue through the spring of 1988. Listed below is the latest information on the hearing dates and locations in Michigan and adjacent states if you wish to make a statement at the hearings. Further hearing schedule updates and background information can be obtained from the Professional Programs Department at ITE Headquarters. If you plan to make a statement at one of these hearings, it would be appreciated if you would inform ITE Headquarters and forward a copy of your statement.

The Institute is a participant in and a strong supporter of the 2020 program effort. I urge concerned transportation professionals to take advantage of this unique opportunity. By making your views known now, you can help set the agenda for surface transportation in the United States for the 1990's and well into the next century.

2020 Hearing Schedule

<u>State/Date</u>	<u>City</u>	<u>Contact Name</u>
Ohio 11/18/87	Columbus	Carla Cafaratti 614/466-8981
Illinois 12/1/87	Springfield	Dan C. Dees 217/782-6332
Indiana 12/16/87	Indianapolis	Daniel Novreske 317/232-5523
Michigan 3/88		G. Robert Adams 517/373-0343
Michigan 4/88		G. Robert Adams 517/373-0343

—By *Walter H. Kraft*, International President

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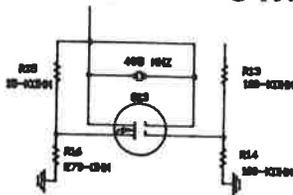
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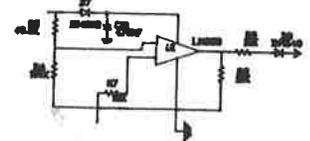
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DOT EYES ORDERING ON-BOARD RECORDERS

The U.S. Department of Transportation (DOT), bowing to concerns over highway safety, has reversed its position and now will consider mandating the use of on-board recording devices in large trucks.

The devices, which monitor vehicle speed and record hours-of-use, would replace manual driver log books, which are thought to be routinely mis-reported. The Insurance Institute for Highway Safety had asked the government to order the recorders as a means of cutting the number of accidents resulting from speeding and long hours on the road.

While not currently required by the government, many major fleets have used the devices for years to keep track of driver efficiency, among other things.

Congress currently is considering at least two pieces of truck safety legislation that include provisions that would force trucking companies to install the devices. Late last year, DOT rejected a similar petition on the grounds that the recorders have never been proven to have a link with highway safety.

—Reprinted from "Transportation & Distribution"

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MDOT Impact Analysis of Chrysler Investment in Michigan

The auto industry is undergoing a worldwide restructure. This is a result of the change that the world economy is bringing to manufacturing. To remain competitive, the domestic auto industry must become more efficient and downsize its overhead. Economists believe that within the next ten years this restructuring will be complete, and the American auto industry will be based on a much reduced group of modern assembly plants based on the new technology that is being evolved.

The choice for Michigan is not to retain its level of auto employment. This is impossible if Michigan's industry is to remain competitive. Michigan's test is to retain and attract as much industry as it can. Many of the new plants that have been developed in Michigan in the last ten years have been the result of partnerships among different state departments, local units of government, and industry.

To this time, Michigan has been quite successful. The construction by General Motors of its Orion Township and Poletown plants, the purchase and development of Chrysler's Sterling Heights plant, and the conversion of Buick City in Flint and the Oldsmobile complex in Lansing have assured the retention of a substantial share of the overall auto production Michigan once had. The Mazda complex in Flat Rock provides an additional portion of Michigan's share of the business.

Of critical importance at this point is the retention of Chrysler's technology center in Michigan, which will maintain Michigan's leadership in the technology and development components of the American industry (Ford, GM, and AMC are already well established). Tied to the technology park, which is planned for Auburn Hills and will result in the transfer of employees from Highland Park, is the construction of a new truck assembly facility planned to replace the current Jefferson Avenue assembly plant in Detroit.

Chrysler's \$800 million investment for the construction of a world-class research and engineering center in the Oakland Technology Park in Auburn Hills will preserve 6,000 to 6,500 highly skilled jobs for our state. These are included in an expected 41,300 direct and indirect jobs resulting from the Chrysler Technology Center and its supplier network. A study conducted by the Institute of Labor and Industrial Relations at the University of Michigan, indicates that by 1995 \$11 billion in personal income, and \$880 million from personal, sales, and single business taxes will result from the Chrysler Auburn Hills investment alone.

Not included in the University of Michigan analysis are the contribution that will be made by existing and expected tenants in the remainder of the Oakland Technology Park. Co-America, World Computer, GMF Robotics, EDS, and GKN are already located in the park. A build-out of over 200,000 direct jobs not related to the Chrysler project are expected. Add to this, the positive associations occurring and likely to occur from Oakland Community College and Oakland University with these major high-tech companies and the total benefits to Michigan's economy becomes incredible.

To provide the minimum transportation infrastructure necessary to resolve existing roadway deficiencies and allow the successful location of the technology center in Auburn Hills, the Michigan Department of Transportation (MDOT) has committed approximately \$64 million. Of this, \$44 million are for interstate highway improvements and \$20.2 million are for state trunkline work. The Michigan Department of Transportation has requested \$14.2 million from the state General Fund for local road support. The vast majority of this transportation investment is to resolve existing congestion and safety problems. Included among those improvements are a widening on I-75 to eight lanes to relieve stop and go rush hour traffic and the fixing of deficient interchanges at I-75/University, Adam Road/M-59 and I-75/M-59. New interchanges on I-75 and on M-59 are needed to serve all tenants of the Oakland Technology Park.

In addition to the research and engineering center, Chrysler will invest \$1.2 billion to utilize their Jefferson Avenue Plant site for a truck assembly plant. The Department of Commerce estimates the retention of 3,600 jobs resulting from this effort. MDOT will provide \$9.7 million in state funds for necessary improvements to the rail line and yards critical to the plant's distribution system. Chrysler will be putting a similar amount into the rail yards as part of their commitment.

The most recent MDOT investment estimate for both Chrysler projects through 1995 is \$133 million. This total includes transportation improvements and Department of Commerce and Labor commitments. The loss of the Chrysler projects at Auburn Hills, and the city of Detroit would be a tremendous blow to Michigan's revitalization and result in the potential loss of well over \$2 billion in private investment.

Clearly, on the Chrysler Technology Center investment alone, the public return to the state general fund of \$880 million from personal, sales,

See ANALYSIS . . . page 7

Urban Traffic Plan Adopted

At the August 1987 meeting of the Institute of Transportation Engineers Board of Direction in New York City, a resource plan for mitigating urban traffic congestion was adopted. The plan outlines the Institute's program for training, funding resources, and public relations in this problem area during the next few years. It will serve as the blueprint for keeping the Institute at the forefront of resolving urban traffic congestion problems.

In other actions at the August 1987 meeting, the International Board granted a petition to create a Florida District of the Institute. The new district will have a slightly larger membership than the Texas District, but the size of the International Board of Directors will remain the same. Florida is currently part of District 5, and this district will be reduced in geographic size and number of Directors on the International Board in June 1988, the effective date of the new district.

A preliminary budget for 1988 was adopted, and it included no increase in the current level of member dues. The 1987 Membership Directory has been delayed because of starter problems with the new computer system. The directory is now expected by the end of August. The Board asked that future directories be in the hands of the membership during June of each year.

The Board designated a scholarship program, oriented to traffic engineering operations, as the project to be funded by voluntary contributions during 1988. The 1988 budget will include a provision to help support travel by ITE International Vice-President candidates. Each candidate may receive up to \$2,000 in reimbursement for travel expenses incurred in visiting ITE members.

As a result of the July 1987 elections in District 3, Del Kloeker from Indiana will be the District 3 Director for a term beginning January 1, 1988. The other ballot issue, which would permit the District 3 Annual Meeting to be held at any time during the year, was approved by District 3 voters.

ANALYSIS . . . continued from page 6

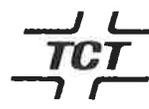
and single business taxes will quickly repay the states commitment. In addition, the benefits of further private development in the Oakland Technology Park; the return on the investment at the Jefferson Avenue plant; and the development of solid cooperative working relationships will result in the successful retention and attraction of as much industry as possible to Michigan.

—By Bill Hartwig

It has been a pleasure for me to serve as ITE District 3 Director during the years 1985 through 1987. Our district is unusual in that the Director serves as both the District 3 representative on the International Board of Direction and as the District Chairman. This dual responsibility requires a little more time, but it does provide our district with a more effective representation on the International Board.

District 3 representatives to the International Board have traditionally been outspoken, in spite of the relatively small size of our district. I believe that I have upheld that tradition. Thank you for the opportunity of serving ITE members in Michigan, Indiana, Ohio and West Virginia as a representative on the International Board of Direction. Because it has provided opportunities for both personal and professional growth, it is an experience I will treasure.

—By Richard F. Beaubien, P.E.

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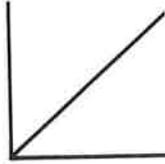
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SPEED-MEASURING RADAR DEVICES ARE TRUSTWORTHY, BUT ...

The Michigan Radar Task Force believes that radar devices are capable of providing the law-enforcement community with a trustworthy means for accurately measuring speed of vehicles on Michigan roadways; but, this endorsement of radar devices does have a major qualification.

The Michigan Court of Appeals ruled that in order to avoid any violation of the due process rights of a defendant, seven guidelines must be met in order to allow into evidence speed readings from a radar device (PEOPLE V. FERENCY, 133 MICH APP 526, 1984). Moreover, in its ruling, the Court of Appeals encouraged the Michigan Radar Task Force (Michigan Office of Highway Safety planning) to establish a set of recommendations that would be useful in the adjudication of radar speeding cases. As a consequence of this ruling, the Office of Highway Safety Planning directed the Michigan

DAVID A. REESE, III
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Radar Task Force to develop a comprehensive set of recommendations that would be useful throughout the Michigan criminal justice system regarding speed-measuring radar devices and their application to speed law enforcement. These recommendations have been developed and a copy can be obtained by contacting: Mr. Max D. Pinkney, Chairperson, Michigan Radar Task Force, c/o Michigan Office of Highway Safety Planning, Department of State Police, 300 S. Washington Sq., Suite 300, Lansing, Michigan 48913, at 517/334-7900.

The Task Force recommends that the defendant be held responsible for the speeding infraction if the following three conditions are met:

First, the radar device was certified by the Michigan Radar Task Force. This certification ensures that the radar device possesses all of the features necessary to verify that the radar device is in proper working order at the beginning and end of the shift in which the speeding citation was issued. It furthermore ensures that the radar device possesses the correct features to ensure that the radar operator could acquire an adequate target tracking history.

Second, the radar operator had adequate training and experience. This training and experience is necessary to ensure that the radar operator knows how to mount (hold) the radar device properly; knows how to verify that the radar device is in proper working order; knows how to acquire a proper tracking history; is aware of the potential for spurious target speed display readings; and knows how to prepare for an appearance before a judge and magistrate.

Third, the preponderance of the forensic evidence related to this specific case indicates that the speeding infraction did occur as stated by the radar operator. Was the radar device in proper working order? When was this verification done? Was the patrol vehicle's speedometer independently calibrated? If so, when was it last calibrated? What mode of operation was used (e.g., stationary or moving)? Was the radar device being used in an area where road conditions or environmental conditions might have led to spurious display readings? What was the nature of the roadway (i.e., type of roadway, general visibility, terrain, visual obstructions, and volume of traffic flow)?

See **RADAR DEVICES** . . . page 9

REGIONAL TRAFFIC SAFETY COMMITTEES

Traffic safety groups in five geographic areas are gearing up for a year of safe driving promotions and looking for answers to the state's traffic safety problems. Sponsored jointly by AAA Michigan and the Office of Highway Safety Planning (OHSP), the traffic safety committees will focus their efforts on identifying local traffic safety problems, finding practical solutions to those problems, and implementing activities for the safety and wellness of residents and visitors.

The locations include the Traverse City area (Grand Traverse Traffic Safety Committee), Saginaw area (Saginaw Valley Traffic Safety Committee), Muskegon area (Shoreline Traffic Safety Committee), Kalamazoo/Battle Creek area (South Central Traffic Safety Committee), and Benton Harbor area, (South Western Traffic Safety Committee). Other committees will soon be organized. Each committee is affiliated with the State Safety Commission.

Committee members are representatives from law enforcement, the judicial system, education, traffic engineering, state government and other organizations impacting traffic safety in the region.

Readers are encouraged to become involved in these important committees. If none exists in your area, please contact Sheridan Rhoads of the OHSP at 517/334-7892 to find out when one might be organized that you can participate in. ■

MICHIGAN LIFE SAVERS '88

The Office of Highway Safety Planning proudly announces "Michigan Life Savers '88" to be held May 18-20, 1988, at beautiful Shanty Creek Resort in Bellaire, Michigan. This is Michigan's only state-wide traffic safety conference. Plan now to attend! For more information write: Life Savers, OHSP, 300 S. Washington, Suite 300, Lansing, Michigan 48913.

RADAR DEVICES . . . continued from page 8

Last, what was the target-tracking history (i.e., visual observations of the target, operational area of the radar beam, characteristics of the Doppler-audio signal display reading, and correlation between the patrol speed display window readings and the readings from the patrol vehicle's speedometer -- the latter only being needed during moving-mode operation).

In summary, yes, radar devices can be an accurate and trustworthy means of measuring vehicle speeds; but, the radar device must possess the correct features and it must be in proper working order. It also must be used by a radar operator that has adequate training and experience. ■

CENTRE OFFERS FREE MATERIALS

Over 1.5-million pieces of traffic safety literature are distributed to the citizens of Michigan each year by the Office of Highway Safety Planning (OHSP). This literature includes pamphlets, posters, placemats, booklets, fliers, litter bags and much more. The materials are available at no cost to citizens and organizations in our state.

In order to keep up with the tremendous demand for items, the OHSP contracts the Michigan Substance Abuse & Traffic Safety Information Centre to respond to requests from across the state. ITE members are invited to take advantage of this free service by obtaining a catalog from the Centre. In addition to OHSP materials, the catalog offers other traffic safety items from various state and national agencies. To obtain your free catalog, call 517/482-9902. Upon receipt of your order, the Centre will assemble and ship materials, usually within two weeks.

The OHSP is always interested in new promotional materials that encourage traffic safety. If you have an idea that can be used throughout the state, please drop a note to the Office of Highway Safety Planning at 300 S. Washington, Suite 300, Lansing, Michigan 48913.

—By Robert S. Nelson, Chief,
Public Communications Unit

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TRAFFIC IMPACT OF SITE DEVELOPMENT- DEVELOPER PARTICIPATION IN THE NORTHFIELD HILLS ROAD IMPROVEMENTS

Northfield Hills Corporate Center is a 394 acre master planned office/research center in Troy, Michigan. The site offers direct highway access to downtown Detroit (25 minutes driving time), Southfield (25 minutes driving time), and Detroit Metropolitan Airport (45 minutes driving time). The area currently has office or research buildings totaling 885,000 square feet of gross floor area, and another 742,000 square feet under construction. When the development is complete, it is expected that the building area will total 5.7 million square feet and support more than 25,000 employees. This development will, of course, have significant traffic impact, particularly during peak traffic periods.

Although the site has access to Interstate 75, the existing roadway system in the area is inadequate to handle either existing or future traffic demand. The north-south arterial street serving the site is Crooks Road, which is 2 lanes wide except for a 4 lane section immediately adjacent to an Interstate 75 ramp. The east-west arterial street serving the site is Long Lake road, which is 2 lanes wide, except for a center left turn lane at the Crooks/Long Lake intersection. The traffic impact study for the site recommended the following improvements:

1. Widen Crooks Road to a 6 lane cross section.
2. Widen Long Lake Road to a 6 lane cross section.
3. Widen the Crooks Road bridge over I-75.
4. Provide additional ramp capacity for access to and from I-75.
5. Construct Tower Drive to a 5 lane cross section to provide local circulation in the area east of Crooks.
6. Construct Corporate Drive, west of Crooks, to a 5 lane cross section to form a circulation loop road with direct access to the I-75 ramp, one-half mile north of Long Lake.

To provide for the roadway needs in this area, a cooperative effort of state government, local government, and developer participation was needed. The Michigan Department of Transportation agreed to widen the Crooks Road bridge over I-75 from its existing 2 lane cross section to a minimum 4 lane

configuration. Although all of the roadway improvements in this area would qualify for Federal-Aid Urban System funds, there was not sufficient federal funding available to finance this level of investment in roadway infrastructure. Long Lake Road and Crooks Road are under the jurisdiction of the Oakland County Road Commission, but the Road Commission had no funding available to finance road widening in this area.

The dilemma of significant roadway needs and inadequate public funding for roads in this area led the city of Troy to develop a special assessment district to meet the needs in this area. This financing mechanism will provide road improvements, street lighting, sidewalks, and storm drains at a total estimated cost of \$13,740,000. The city's share of this project will be \$2,700,000. This is the cost of providing additional lanes of pavement. The cost of providing sidewalks, street lighting, and storm drains will be borne by private property owners in the area. This cost will be assessed over the life of the improvements, an estimated 15 years, and construction is expected in 1987.

The special assessment method of financing was chosen for the following reasons:

- A. This method of financing is currently available under Michigan State Law whereas other methods, such as Traffic Impact Fees, are not.
- B. Cost may be more equitably distributed among property owners and the general public.
- C. A more unified, consistent and rational system of roads, drains, sidewalks and street lights will be possible.
- D. Future benefits (special assessments) are more easily and equitably assigned to all parcels. The total system is built under one program rather than follow the practice of a "patchwork quilt" approach through negotiated agreements for turning and passing lanes added to the existing roadway system.

The use of special assessment districts to finance road improvements is not unique. However, the Northfield Hills Corporate Center project represents a unique application of an existing finance

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MICHIGAN SECTION STUDENT PAPER COMPETITION

The Michigan Section of the Institute of Transportation Engineers (ITE) has established an annual student paper competition to encourage student participation in the field of transportation, section activities, and the national ITE paper competition.

AWARD: Cash awards for the winners of the competition are \$100 for first place and \$50 for second place. Winning papers will be presented during the technical session at the annual meeting in December, 1988.

PAPER SUBMITTAL: Papers must be postmarked no later than October 31, 1988 and sent to:

Richard W. Lyles, Chairman
Student Chapters Committee
Michigan Section ITE
414 West Maple Street
Mason, Michigan 48854

ELIGIBILITY: Any undergraduate or graduate student enrolled in an engineering program in the state of Michigan is eligible.

PAPER TOPIC AND FORMAT: The paper must be written on a transportation subject and have a maximum length of 5,000 words. The submission must be typewritten (or word processed), double-spaced, and on 8 1/2 x 11" paper. It must have a table of contents and be written in English. The title page must have the title, author's name and current mailing address/telephone number.

EVALUATION CRITERIA: Originality, significance, scope and format, validity, and applicability.

JUDGING: The papers will be judged by a committee appointed by the board of the Michigan Section of ITE.

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technique. It is unique because of the magnitude of the proposed improvements, and it is unique because assessment of local properties in a municipality will be used to widen county arterial streets. It is also unique because it will allow the roadway system to be built in advance of need. The roadway system to be constructed will be expected to handle traffic when all the office and research space is in place and when all 25,000 employees are working in the area. In October 1986, the existing building area was 885,000 sq. ft. and employment was approximately 4,000. Having the future roadway system in place will be an obvious marketing advantage for developers hoping to lease office and research space in the Northfield Hills Corporate Center.

—By Richard F. Beaubien, P.E.

AASHTO STUDIES WORK ZONE ACCIDENTS

A recent AASHTO study of work zone accidents throws new light on the when, where and how of these incidents. Fatal collisions in the work zones, the survey shows, are primarily a rural problem on both the Interstate and other primary systems, but the vast majority of injury and property-damage-only accidents occur in urban areas, which represent only about 15 percent of the mileage involved. Also, the work zone accident problem is more frequent on Interstate highways than on other primary roads.

Comparing work zone accidents to all accidents on roads, the former are more severe and result in more fatalities per accident, according to the ASSHTO report. Nighttime accidents account for more than half the fatal accidents, and have a higher incidence of injuries proportionately. The limited data indicated that trucks appear to be over-represented in fatal crashes on the Interstate (34 percent), especially on rural sections. The data collected covered 1984 and 1985 records.

The ASSHTO study concludes that work zone accidents are a serious problem with significant economic consequences. Based on the data, the estimate is that there were 400 fatal accidents, 15,000 injury accidents and 31,000 property-damage-only accidents in work zones on the Interstate and primary system in 1985, with the economic cost estimated at \$800 million.

More than two-thirds of work zone mishaps occur in daylight, but nighttime accidents are far more severe. The recommendations urge upgrading of record-keeping to get a better handle on worker exposure, evaluation of more vulnerable work activities and the traffic safety strategies used to prevent or minimize injuries and deaths. Countermeasures to reduce nighttime accidents and to alleviate fixed object hazards would seem to be the most critically needed.

—Reprinted from "Highway & Heavy Construction"



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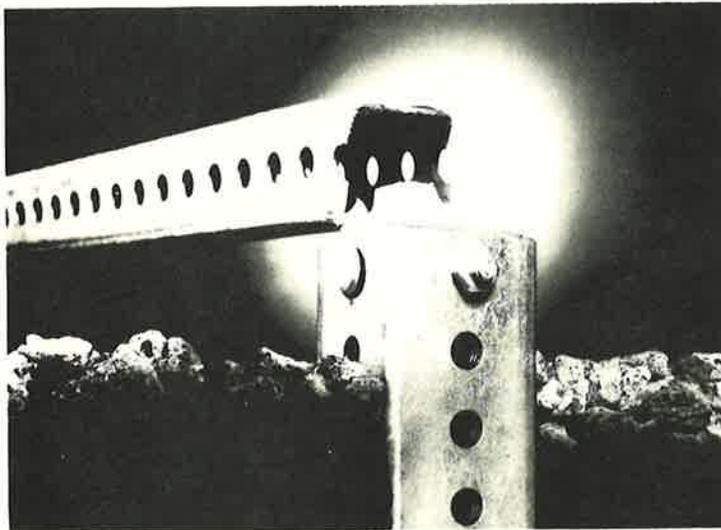
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