

# STATE MAY POST BEST FATALITY RECORD SINCE EARLY 40s

Early indications are that 1983 may well be one of the safest years on record in terms of traffic accident deaths in Michigan. As of January 24, the Department of State Police, Traffic Services Division, had recorded 1,310 fatalities for 1983. This figure represents a reduction of 107 deaths from the 1982 total of 1,417. This 1983 figure is "provisional", however, since the state includes deaths which occur up to 90 days beyond the date of the accident. Thus, the Department will not officially close its records on 1983 until April 1, 1984.

State Police officials are estimating that another 15-20 deaths may be added to the current 1983 total during the next two months. In any case, it is likely that there will be at least 70 fewer fatalities recorded for 1983; this would be a reduction of about seven percent. Figures on injuries and property damage crashes will not be available until about May of 1984.

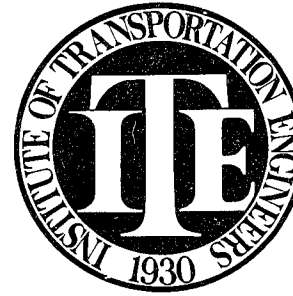
The last year that the fatality figure dropped this low was in 1945 when 1,150 traffic deaths were recorded. However, at that time the mileage death rate (fatalities

per 100 million miles) was 9.7--much higher than the rate of 2.2 posted in 1982. The 1983 figure is expected to be 2.0, which would be the lowest rate every recorded.

There is still another encouraging sign--the decline is continuing into January. As of January 22nd, 49 deaths had been reported compared with 73 in January 1983. In this case, the bitterly cold weather has no doubt been a factor in this most recent reduction.

What are some of the other major factors? The Traffic Safety Association believes that the relatively recent emphasis on the drunk driving problem coupled with an increase in seat belt usage are the two predominant reasons for the improved fatality picture. This is not to ignore, however, the contribution of ongoing safety programs in the areas of education, especially driver education and traffic engineering.

The above article is reprinted in its entirety from TSA Newsletter with permission of Tom Reel, its editor.



# MICHIGANITE



SPRING 1984

VOLUME IXX NUMBER 1

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

## ITE "CALL FOR ACTION" ON SAFETY BELT BILL



### PRESIDENT'S COLUMN

#### A REVIEW AND PREVIEW

by Tom Krycinski

Many thanks to Dick Beaubien for the fine job he did as President of our Michigan Section of ITE. It makes my job as incoming President much easier and I'll be leaning on Dick during my tenure in 1984.

I was most pleased at the turnout of our section at our first section meeting at Oakland Community College in January. If I could have one wish fulfilled during my presidency in 1984, it would be to meet each and every one of you at one of our section meetings throughout the year. This really wouldn't be very difficult since Bob Lariviere, our excellent vice-president, has a busy meeting schedule arranged for us this year. There is nearly a meeting a month this year and Bob has them distributed across the State.

Your Executive Board has agreed on two major goals for 1984. The first is to better address and include the many technicians who belong to our Michigan Section in section activities. The second is to be more timely in our communications to the membership. Inherent in the first goal is the need to increase student membership and interest and Dr. Thomas Maleck has helped in that regard by starting a student ITE chapter at Michigan State University. Fred Coleman is President of that chapter. Additionally, students will be making actual presentations in section technical sessions in 1984. Mike Labadie, Technical Program Chairperson, working with Don Wiertella, our newly elected secretary, has arranged for Dr. John Antrim, a registered Professional Engineer and General Manager of the National Institute of Certification in Engineering Technologies, to make a presentation at our March 22, 1984 Lansing section meeting. He will discuss Technician certification on that day in line with this goal.

In line with our second goal of timeliness in communications, Bob DeCorte, our Michiganite Editor, saw to it that our first issue in 1984 was out in a timely fashion. Additionally, Bob Lariviere, our Program Chairperson and Don Wiertella, are working hard at getting meeting notices to you promptly.

I see the year, 1984, as an exciting one and I'm sure the sound board I have behind me will make it so. The only other ingredient we need is general membership involvement. We will work hard to put on good technical sessions and section meetings, but that's pretty fruitless if you don't take advantage of it all. The

As an active ITE member, your help is needed once again to promote adoption of HB 4203--to require seat belt use by all front seat passengers.

Presently, fifty-five votes are needed for passage of this most important bill. And, the word out of Lansing is that 48 to 50 House members have indicated they will vote "yes" when the bill again reaches the House floor, so we are still very close to securing the necessary votes. BUT...there is still a strong perception on the part of legislators that the public, the "voters" if you will, are strongly against this measure.

Mr. Tom Reel, working through the Michigan Coalition for Safety Belt Use, says that the volume of mail to legislators on HB 4203 has dropped off considerably during the last several months. "Legislators tell us that they aren't hearing much one way or another on this, but many still seem to feel that most people are opposed to the seat belt bill--largely due to the 'freedom of choice' issue," Reel said. "Just a few short, positive letters right now would certainly boost our lobby effort," he added.

Thus, we are again urging all ITE members to drop a line to their legislators (House and Senate) urging their "yes" vote on HB 4203. These should be one or two short paragraphs in personal handwritten style. This type of letter has the greatest impact. Let's do it! (For further reference, see the HB 4203 "Fact Sheet" inside this issue.)  
By Tom Reel

#### RISK REDUCTIONS WITH SAFETY BELTS

frontal crashes  
FATALITIES  
head 82%  
neck 100%  
chest 53%  
abdomen 29%

SERIOUS INJURIES  
head 71%  
neck 100%  
chest 26%  
abdomen 61%  
arms and legs 81%

Reprinted from University of Michigan Transportation Research Institute

rollover crashes  
FATALITIES  
head 84%  
neck 100%  
chest 67%  
abdomen 48%

SERIOUS INJURIES  
head 100%  
neck 100%  
chest 71%  
abdomen 67%  
arms 70%  
legs 74%



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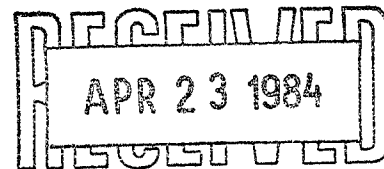
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Official Publication Michigan Section

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**PRESIDENT'S COLUMN** *cont.*

year, 1984, will also see tighter governmental budgets and we're working hard to keep meeting costs reasonable. It may also be the year when we see a mandatory seat belt law passed. It undoubtedly will be a year when we see sobriety check lanes tried in the State. In line with these concepts, articles are contained in this newsletter to keep you abreast of these current events even if they only impact you indirectly.

Bob DeCorte would welcome some letters from his readers letting him know how you feel about the newsletter. Also, if you have strong feelings about an article in this issue, react to it in writing and Bob will publish it for the interest of all members.

I look forward to a year of active participation from each of you. Don't let me down!  
Thomas R. Krycinski, President

**REMINDER**

The ITE/MSA Family/Technical Weekend will soon be upon us, so make your reservations soon. This Holiday Inn in Mt. Pleasant is one of the finest locations in Michigan to host a family weekend. The facilities offer swimming, golf, tennis, racquetball, shuffleboard, game room and much much more. As usual, a continental style breakfast will be available each morning to begin your day and the Inn has guaranteed sunshine and loads of fun.

To make your reservations for July 27 & 28, call 1-800-238-8000 or the Inn directly at 517-772-2905. A block of rooms is being held for the event but are filling fast. Call now to guarantee your room and enjoy a weekend of relaxation and fun in the sun.  
by Tim DeWitt

**TREASURER'S BUDGET FOR 1984**

Receipts	
Dues	\$2,200.00
Michiganite Ads	1,980.00
Bank Interest	175.00
Reserves	295.00
	<u>\$4,650.00</u>
Expenses	
Postage	\$ 750.00
Supplies	100.00
Printing Michiganite	2,400.00
Printing Notices	400.00
New Programs	100.00
President's Expenses	500.00
Technical Rep's. Expenses	100.00
Plaques/Awards	125.00
National ITE	100.00
District III	75.00
	<u>\$4,650.00</u>

**LIFE SAVERS CONFERENCE**

Tentative plans are being made by the Office of Highway Safety Planning for a Life Savers Conference to be held at Boyne Mountain on November 7, 8 and 9 of this year. This statewide conference will be modeled after the national Life Savers Conference with workshops and general sessions concentrated on alcohol-related and safety restraint-related topics. It is the first state conference of its nature with the intent of attracting a large state audience at a more economical price. A task force has been established to plan the conference and greater details will be contained in our summer issue of the Michiganite. Watch for the details as it looks to be a promising conference.

Judy Nyberg, OHSP Occupant Restraint Coordinator

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MICHIGAN SECTION ITE, TREASURER'S REPORT

Balance: December 31, 1983	\$1,502.00
Receipts:	
Dues, Bank Interest, Postal Refund	\$ 762.00
January & February Meetings	289.73
Miscellaneous	80.50
	<u>\$1,132.23</u>
Expenditures:	
Postage, Printing and Supplies	\$ 341.13
Michiganite Printing	730.60
	<u>\$1,071.73</u>
Balance: February 29, 1984	\$1,561.70
Treasurer, Rich Cunard, P.E.	

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, Robert V. DeCorte, 7441 Emerson Drive, Canton, MI 48187

**PEOPLE in the news . . . .**

**HASELTINE GOES TO WASHINGTON**

Secretary of Transportation Elizabeth Hanford Dole has appointed Philip W. Haseltine as Deputy Assistant Secretary for Policy and International Affairs of the Department of Transportation.

Haseltine has served as Executive Director of the Michigan Office of Highway Safety Planning. Appointed to that post in February 1979 by then Governor William Milliken, Haseltine also served as the governor's highway safety representative and Executive Secretary of the State Safety Commission. He was responsible for the state's safety program and for coordinating highway safety efforts involving local, state and federal governments.

Haseltine's experience includes numerous national level highway safety activities, including election three times as Chairman of the National Association of Governors' Highway Safety Representatives. Between 1970 and 1979, he held several other posts in state government, all of which were traffic safety-related. He has served on executive boards or committees for a number of state and national safety organizations, including the National Safety Council, Highway Users Federation and Transportation Research Board.

Haseltine, 39, is a native of Detroit and a graduate of Michigan State University where he received a bachelor's degree in economics and did graduate work in community resource development and environmental law. We wish Phil well in his new position.

**SUZANNE MICHELLE LARIVIERE**

Congratulations (again) to Bob and Cheryl Lariviere, the proud parents of their newest daughter, Suzanne. She was born on Friday, February 3, 1984 and weighed 6 pounds 5 ounces and was 19" long. "She is a stinky-featured little baby-real cute," stated her dad. Suzanne ties the score at three boys and three girls in the Lariviere household.

Answer to Trivia question: (May 11, 1903 to Gustave Lebeau, patent #331.926 - at the French Industrial Ministry - Protective suspenders for autos and other vehicles.)

**WELCOME**

New Members

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Kent Co. Road Commission

Thomas DeMaso  
Calhoun Co. Road Commission

Richard W. Lyles  
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Michigan State Univ.

**IN MEMORIAM**

Sam M. Long  
August 12, 1918 - March 2, 1984

Sam M. Long, 28-year Michigan Department of Transp. Engineer, died suddenly at Mayo Clinic on March 2, 1984.

He began his career with MDOT in February of 1946 after attaining the rank of 1st. Lieutenant in the U.S. Army in 1945. He held many positions in the traffic engineering area and used his favorite hobby, photography, extensively in his work. He became the District Traffic Engineer in the Cadillac District in 1961 where he stayed until his retirement in 1974.

He was very well liked and respected inside and outside the engineering community and will be missed by all his friends. He is survived by his wife, three daughters and son.

In an effort to keep our mailing list up-to-date, please send me your correct address if the one on the other side is incorrent or inadequate. Fill in the correct mailing address below and mail to Rich Cunard, ITE c/o TIA, 2510 S. Telegraph, Bloomfield Hills, MI 48013

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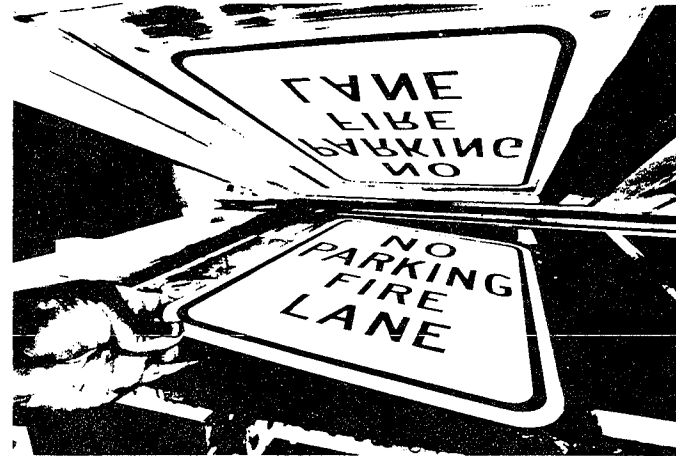
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**SEQUENTIA'S POLYPLATE PANELS WIN  
SPI PRODUCT OF THE YEAR AWARD**



IT'S A SIGN OF THE TIMES

The Society of the Plastics Industry has named Sequentia's Polyplate™ fiberglass reinforced panel as its Specialty Reinforced Plastics/Composite Product of the year. Polyplate was honored in the "Winner's Circle" at the RP/C EXPO '84 and during the Reinforced Plastics/Composites Institute's 39th Annual Conference in Houston, Texas on January 18, 1984.

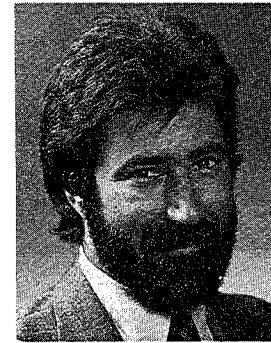
Four years in development, Polyplate Fiberglass Reinforced Paneling was designed specifically for traffic control sign usage as well as for other outdoor sign applications. It's an ideal replacement for aluminum, providing improved performance at a competitive price while reducing costly theft and vandalism. Polyplate offers universal weather resistance. It is unaffected by moisture and normal temperature extremes and resists denting, rusting, warping, or tearing. Other outstanding performance characteristics include wind and fire resistance, excellent adhesion for reflective sheeting and ease of handling, fabrication and application. Additional benefits are the built-in color that eliminates a painting step when reflective sheeting is not required and the elimination of burrs in fabrication. Polyplate is easy to handle and can be drilled, punched or nailed without damage.

Manufactured through the continuous laminating process, the panels are made of acrylic-modified general purpose resin, fire-retardant resins, chopped strand glass fiber, and alumina trihydrate. Weight is about one pound per square foot. Panels measure .135" thick, 48" wide with lengths of 8, 10 and 12 feet and are available in a variety of colors that are highly fade resistant and scratch resistant.

All products considered for the RP/C award are highly innovative, state of the art products that are in current production and are available commercially. Numerous products are submitted every year for this prestigious award.

Polyplate is a product of the Reinforced Plastics Division of Sequentia Incorporated. Headquartered in Cleveland, Ohio, Sequentia is the leading manufacturer of fiberglass reinforced paneling, including the well-known Alsynite®/Structoglas®.

The US government estimates that each motor vehicle death costs society \$309,563 in insurance, medical treatment, law enforcement and worker's comp (Not included is lost productivity and individual pain and suffering).  
Reprinted from Aqua Reporter



**SIGNALS —  
FULL OPERATION  
VS.  
FLASHING**

by Jim Barbaresso

This study evaluated the relative accident impacts of flashing signal operation and stop-and-go signal operation in Oakland County, Michigan. Analyses were conducted to determine:

1. If an accident problem exists at intersections where signals are placed on a flashing mode during off-peak, nighttime hours.
2. What levels of accident experience can be expected under different conditions and signal operations.
3. Appropriate criteria for making signal operation decisions during off-peak, nighttime hours.

The results of the study indicated that right angle accidents are significantly over-represented at four-legged, arterial intersections when signals are in a flashing mode during nighttime hours. A before-and-after analysis demonstrated that up to 100% of late night right angle accidents can be reduced by eliminating flashing signal operation, with no significant effect on the frequencies of other accident types. The elimination of flashing signal operation appears to be effective in reducing nighttime, right angle accident frequency and road agency liability exposure at individual locations or on a system-wide basis.

Factors which were found to be related to the level of right angle accidents at flashing signal locations include:

1. Intersection type (i.e. 3-legged or 4-legged).

A little trivia for the next time you're sitting around playing Trivia Pursuit: When was the first patent for a "seat belt" granted? (Look for the answer in this Michiganite)

2. The functional classification of the intersecting roadways.
3. The hourly volume ratio (i.e. main street traffic volume/minor street traffic volume).
4. Driver impairment.
5. Time of night.

When making decisions regarding signal operation during off-peak, nighttime hours, right angle accident frequency and rate should be primary factors in the decision-making criteria. If conditions favor the occurrence of right angle accidents, yet none had occurred during the review period, other criteria for making signal operation decisions are presented.

For a copy of the complete report, you can contact Jim Barbaresso at the Oakland County Road Commission.  
by Jim Barbaresso

**A TIME FOR REFLECTION**

Experts in Australia have determined that the planting of certain types of trees along roadsides can serve as a low-cost and more attractive means of marking the edge of the road and warning nighttime drivers of oncoming curves and other obstacles.

At a meeting in Perth late in 1982, Mr. Colin Fleming of the Tasmanian Department of Agriculture told the National Technical Workshop into the Production and Marketing of Australian Wildflowers for Export that many species of Australian native trees have shiny leaves appropriate for this purpose. The eucalyptus and acacias, among others, reflect light from their leaves. These leaves glisten even more brightly when wet, resulting in an even more effective warning during rainy conditions, when visibility and road safety are the poorest.

If planted at strategic spots along roadways which are unlighted at night, Fleming says, such trees could replace the warning signs which are generally used. Trees are both cheaper and more attractive than these metal signs.

Fleming stressed the importance of the collaboration of transportation engineers and landscape architects in this effort. An expert in botany is needed to choose the proper tree for each road situation.

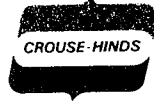
This idea was brought out in part as a contribution to Australia's extensive efforts under its United Nations Association's "Year of the Tree."  
Reprint from Urban Transportation Abroad

1984 MEETING SCHEDULE

Date	Location	Host	Event
March 22	Lansing	Glen Etelamaki	Tech. Session
April 26	Grand Rapids	Ed Swanson	Dinner Meeting
May 11	Ann Arbor-Weber's	Jerry Carrier	Ladies' Night
May 17	Southfield	Savage & Northrup	Vendors' Day
June 14	Battle Creek	Ken Shackman	Dinner Meeting
July 27-28	Mt. Pleasant	Tim DeWitt	Tech./Family Weekend
September 13	Lowell	Grand Rapids	Golf Tournament
September 23-27	San Francisco	National ITE	Annual ITE Meeting
October 4-5	Ohio	Ohio Section	District III Meeting
November 8	Frankenmuth	Roger Walther	Lunch Meeting
December	Pontiac Silverdome	Rich Cunard	Annual Meeting

## CHILD RESTRAINTS

Government Employees Insurance Co. (GEICO) has expanded its safe rider program to include 178,000 auto policyholders located in the District of Columbia and Maryland. GEICO offers a convertible Cosco/Peterson child restraint costing about \$60 for only \$20. GEICO will refund the \$20 when the seat is returned and then donate the used seat to a local child care program. An earlier offering to Virginia policyholders was successful and spurred the program's expansion, GEICO said.  
Reprinted from Status Report



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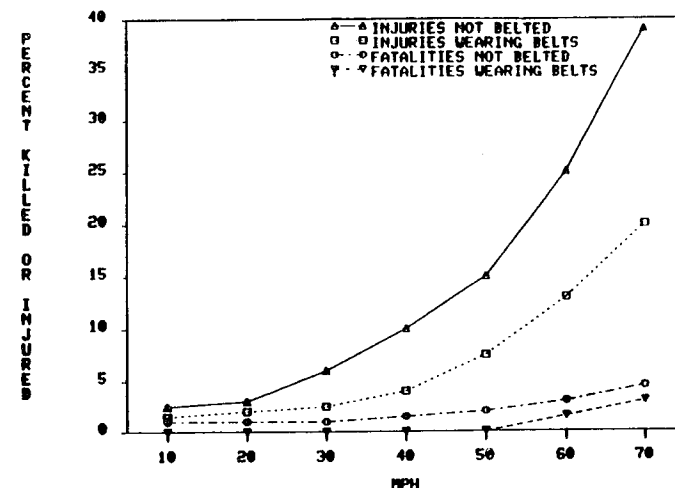
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## WRITING LEGISLATORS

The following list has been directly reprinted from the Michigan Police Chiefs Newsletter with their permission as a handy reference to increase needed mail for important issues being considered by the legislature.

### How to Write Legislators

1. Keep the letter short, rarely more than one page. Type if you can; write clearly.
2. Write it in your own words and include your own thoughts.
3. Cover only one issue; save other issues for later letters.
4. Show your familiarity with the subject, and with the current status of the legislation (mention the bill number if possible). This will indicate that you are serious about the issue, unlike the casual, uninformed correspondents who produce the bulk of constituent mail.
5. Be specific about what you want your representative to do.
6. Give reasons for your position. Cite your own experience and findings if possible. If the bill has a local impact, indicate that fact so your representative will realize that the bill has a direct effect on his or her district.
7. Ask your representative a direct question about his or her own position on the bill. You want to receive a clear answer, not a form letter. If you are requesting an appointment, give alternate times if possible, and ask for a reply.
8. Don't mention your membership in any organization unless it is directly related to an experience you are describing. The individual citizen's letter is what counts most.
9. If you can, mention your legislator's vote on a recent issue to show your awareness of his or her record.
10. In general, be helpful rather than threatening. You can best show your genuine concern for the issue by not threatening or whining, but by offering to provide further information on the subject.
11. When congress or the state legislature is in session, address all letters to your representative in Washington or the state capitol. At other times, write them at their local offices.
12. Finally, remember: Any letter is better than no letter. Postcards are second best -- it's hard to get much information on them.  
Thomas R. Krycinski, President



## FOR YOUR INFORMATION

The following information was provided by Don Johnson. This material is quite interesting, however, each person is urged to consult with their legal counsel before attempting to specify proprietary items. (Editor's Note).

### Federal Court Says "Or Equal" Up to Specifying Source

Affirming a decision handed down by the U.S. District Court of Massachusetts, the Federal 1st Circuit Court in the case of Whitten Corp. vs. Paddock, Inc., was backed up by the U.S. Supreme Court which refused to hear further appeals. The decision is unique in that it defines the specifying party's clear authority at the federal level where previous decisions have been in lower courts.

Four major rulings regarding specifications come from this landmark decision:

1. The court ruled that proprietary specifications are not a violation of anti-trust laws. Further, the court stated that trained professionals - specifiers - make informed judgments on products which they feel best serve their client's needs. Technically, few brands of materials or equipment are exactly alike, and if the specifier wants to limit the specification to one source he has the right to do so and to enforce it.
2. The court ruled that other suppliers or manufacturers can qualify as "Or Equal" only when the specifier chooses to waive specifications or permit those suppliers or manufacturers to bid.

However, it is clearly stated that the specifying source is charged with the responsibility and judgment for determining whether a proposed substitution is an "or Equal." Further, where "Or Equal" is not stated in the specifications, it is still the specifying source's decision as to what products do or do not qualify as "Or Equal."

3. The court stated that the specifier "...may waive specifications in order to obtain a more desirable product for the client". The implication is again that only the specifier (from start to finish of the construction process) can ultimately decide that another desirable product is available in lieu of the product originally specified in the client's best interest.
4. The court concluded "the burden is on the supplier or manufacturer who has not been specified to convince the specifier that their product is equal for the purpose of a particular project."

This is probably one of the most powerful court judgments in construction law history to come down the road - in that the judgment now establishes the specifier's legal right toward brand selection. It should also merit very important consideration for those manufacturer's that desire to make a better quality product and thereby get paid the necessary price to stay viable with it.

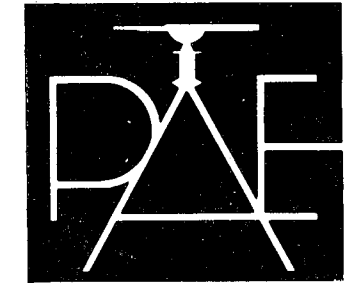
Reprinted from Tex ITE/September 1983.

## OLD GRAY MARE AIN'T WHAT SHE USED TO BE!

The appearance of the horses in Lulea, Sweden, is changing. They are being outfitted with - that's right - license plates. (We're not sure if they go on the front end or rear.) Lulea claims that riders horsing around in private recreation areas are destroying terrain, and the city's park administration wants to put a "whoa" to that trend. What a nag!  
Reprinted from Aqua Reporter

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## NEW MICROCOMPUTER SUPPORT CENTER FOR SAFETY AND TRAFFIC ENGINEERING

The Federal Highway Administration (FHWA) has recently established a new Microcomputer Support Center in Cambridge, Massachusetts to provide assistance in the new and rapidly changing field of microcomputer applications in transportation. Although funded by FHWA, The Center is operated by the U.S. Department of Transportation's Transportation Systems Office and consists of three separate support initiatives, each focusing on a different aspect of transportation.

The first initiative, known as the "Microcomputers Application in Highway Projects" Center, provides assistance in the productive use of microcomputers for small towns, rural county and statewide highway issues. It was created as part of FHWA's Rural Technical Assistance Program, and focuses on highway-related issues typically found in less densely populated areas.

The second initiative, known as the "Safety and Traffic Engineering Applications with Microcomputers" Center, concentrates on applications specifically related to highway safety and traffic engineering and aims to increase the resource productivity and the design and operational efficiency of the highways.

The third initiative, known as the "Microcomputers in Transportation Planning" Center, focuses on urban transportation planning and ridesharing applications of microcomputers.

Each of the Centers is designed to complement the others. Among the services provided by each are the following:

- assistance in forming a user group for each Center
- publication of technical bulletins
- operation of a software clearinghouse
- maintenance of the respective software
- provisions for a telephone advisory "hot-line"
- development of microcomputer user group and product directory

Membership in the individual user groups of the Support Center is available, free of charge, and open to all who apply. Additional information can be obtained from the Center for each group by calling the hot-line number (617-494-2247) or by writing to the Support Center, DOT/Transportation Systems Center, DTS-62, Kendall Square, Cambridge, Massachusetts, 02142. By Morrie Hoevel

## PREPAID PARKING DEVELOPED IN SWEDEN

The Swedish town of Skelleftea (pop. 74,300) will introduce a coinless, computer-based system of meter marking in 1984. The new system has been developed locally by an electronics company which holds the world patent rights.

Under the new parking system, an automobile owner rents a device called a PX meter from the city. The PX meter resembles a pocket calculator and comes equipped with as many hours of parking time as are purchased by the owner. When the vehicle operator parks by a meter, he punches the meter number into his PX device, which then begins to record the time elapsed while the car is parked. The PX meter is placed in the window of the parked vehicle, easily visible to passing meter maids. When the driver returns to the car and leaves the parking space, he turns off the PX meter. A display shows the amount of parking time remaining.

When the PX meter is "empty," it can be "re-charged" at any gas station. The new value on the PX meter is read onto a computer terminal at the station and the money paid by the driver goes to the town of Skelleftea. Production of the PX meters will begin in 1984 in a plant located in Lovanger, just outside of Skelleftea.

A simpler, self-enforcing system that does away with meters entirely is operating in Israel. Reprint from Urban Transportation Abroad

## THANKS G. R. PRESS

The opponent's "freedom and/or rights" argument against seat belt legislation was eloquently shot-down by The Grand Rapids Press in an editorial on Jan 24th. In part, the editors made the following points:

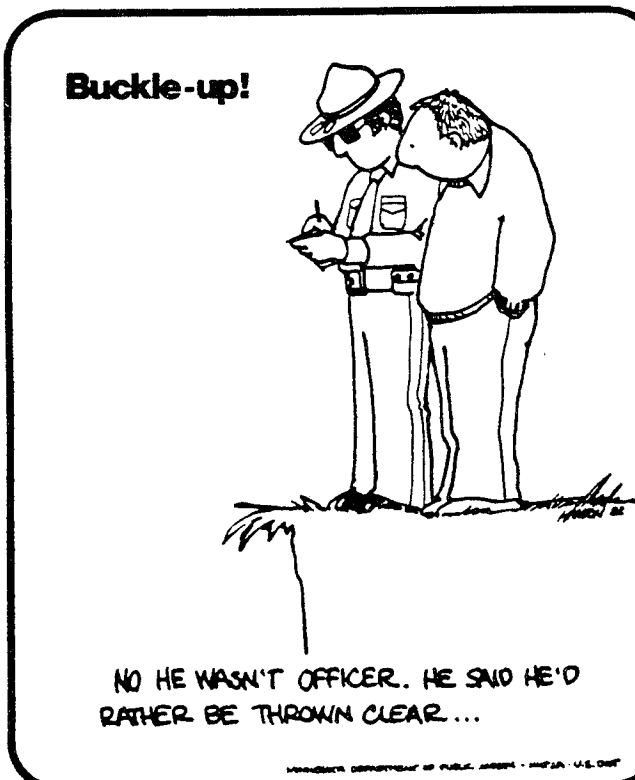
...Rarely do lawmakers have better reason or opportunity to pass legislation that would annually save hundreds of lives and prevent thousands of horribly disabling injuries--all without cost and without impeding car use.

Instead the common sense bill is held hostage by politicians who, like the governor, are all or partly paralyzed by mindless logic that rates seat belt choice alongside the Bill of Rights....

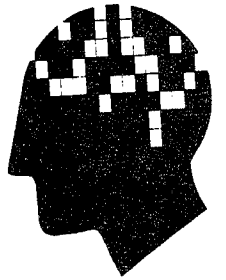
The notion that seat belts are somehow different is an exercise in pseudo individualism. Families, employers, employees, taxpayers, insurance costs--all are dramatically affected by drivers who will die because they don't wear seat belts. Many others will be affected by long-term disablement, an equally tragic and even more common possibility.

There is no indication that a mandatory seat belt law, like that which requires passengers to buckle up on airliners, greatly disturbs more than a relatively small number of noisy opponents. Somehow they have cast a commanding aura of "privacy" and "rights" over the issue. In light of regimentation that government and commerce impose on us daily, a seat belt law is no more intrusive than one that says not to jaywalk.

The opposition should be ignored. By not speaking out forcibly on the issue, Gov. Blanchard lends undeserved credibility to the opposition and its lame theories. Legislators, in turn, ought to know when to turn a deaf ear to those who demand a "right" to add to the state's frightful traffic toll. Reprinted from STRAIGHT TALK.



## Give ITE a Piece of Your Mind



The Michiganite always welcomes your comments and articles. There must be something that you are doing that others would find interesting - even beneficial and useful. Perhaps its a promotion or a baby, maybe an old idea revisited or a new idea untried or something you've always wanted to say.

Type it and send it to me at 7441 Emerson Drive, Canton, MI 48187 and it will be put in the next issue. If you wish your name to be withheld just say so or send it anonymously. by Bob DeCorte

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# ANN ARBOR TECHNICAL MEETING

On February 23, 1984, Ken Feldt hosted a luncheon/technical session at the Holiday Inn-West Bank in Ann Arbor. A very interesting technical session was put together by our Technical Chairman Mike Labadie. The membership appreciates the fine efforts of both Ken and Mike which contributed to a successful meeting.

Our first speaker was Paul Riley who is MDOT's Metro District Traffic and Safety Engineer. Paul discussed the planned reconstruction of the John C. Lodge freeway. He showed a video tape of a similar project in Pittsburg to illustrate the types of maintaining traffic problems that will be confronted and some of the possible solutions. A committee has been formed to develop a plan to maintain traffic during the Lodge reconstruction. Three alternatives are currently being reviewed with the most feasible plan involving total closure of the Lodge with traffic detoured to surrounding surface roads. Carpools, van pools, express buses, reversible lanes, and high occupancy lanes are some of the ideas being considered to assist in the movement of traffic during construction. Paul indicated that a public information plan is being developed to use radio, T.V., and the print media to provide the motorists with necessary information to minimize congestion and personal inconvenience.

Next Morrie Hoevel of the FHWA and Larry Brown of the MDOT discussed 55 mph certification from the federal and state viewpoints. Morrie reviewed the history of the 55 mph national speed limit and the requirements for each state's compliance. In January of 1975 a bill was signed making the 55 mph speed permanent and creating a reporting system for compliance with the law. The Federal Highway Safety Act of 1978 provided for withholding of safety funds for non-compliance and a manual on the speed monitoring procedures to be used by the states. As yet safety funds have not been withheld from any state even though a few, including Michigan, are very close to non-compliance with the federal requirements.

Larry Brown reviewed the MDOT's procedure for reporting statewide speeds to the FHWA. Michigan monitors five roadway categories with the rural interstate having the highest non-compliance while comprising about 14 percent of the data. Michigan has 37 locations based on mileage and volumes. Control stations are monitored every quarter for 24 hours while standard stations are monitored once a year. Larry indicated that speed enforcement is related to the results obtained through monitoring. Even though speed enforcement is up six percent the State Police priority remains accident reduction. It is expected that speeds on Michigan roads will continue to increase.

Dick Beaubien discussed the Michigan Section Technical Project entitled "Public Understanding of Traffic Engineering"

which was recently submitted to National for consideration for the Section Technical Award. This project began two years ago as an outgrowth of a program on the future of the urban traffic engineer. There appeared to be a lack of understanding of traffic engineering and its importance. There was a need to improve the status and credibility of the traffic engineer. In an attempt to improve the situation 3M conducted a small meeting of Section members to discuss problems and possible solutions. This group concluded that traffic engineers should spend more of their time on communications and management functions. In a response to the need for improved communications 3M conducted a two hour session on improved communications as a part of the March 1983 Technical Program. From this program the Section Technical Project evolved and includes success stories of good communications from various traffic engineers in Michigan.

Our last topic Accident Investigation from the counties' viewpoint was presented by Jerry Holmberg of the Oakland County Road Commission and Mike Labadie of Professional Engineering Associates. Jerry reviewed Oakland county's accident investigation procedure which involves an in-depth review of nearly all fatal and some "A" injury accidents. Fatal accidents are studied immediately by area personnel in order to make any improvements to the location and to freeze the facts in preparation for potential liability suits. Past experience is used to decide which "A" type accidents are reviewed. Signalized locations are reviewed as a group not as individual locations while all pedestrian, bicycle, and ran-off roadway fixed object accidents are reviewed. All spectacular accidents and accidents involving prominent people are reviewed along with most railroad accidents. Oakland county's accident investigation procedure is closely related to their risk management program. Mike presented the accident investigation topic from the viewpoint of a professional group that is called upon to testify for plaintiffs in suits against road agencies. Mike asked the question, "Are road agencies doing everything that is necessary in the accident investigation area within the constraints of time and resources which may not be available for smaller agencies?" He recommended that when investigating an accident the police officer's facts should be verified in addition to other pertinent data which existed at the time of the accident. Mike indicated that it is necessary to form a review team to investigate the accident site and make any necessary improvements. He indicated that serious injuries are more likely to result in a law suit than fatal accidents. Accident investigation is an important tool and should be used to provide a safe environment for the motorist and to reduce the road agency's liability.  
By Bob Lariviere

## REMOVAL OF A MULTI-WAY STOP - CALHOUN COUNTY

Multi-way STOP controlled intersections are often viewed by the public as very safe intersections. However, there are times when the restrictive control of a four-way STOP is no longer required at an intersection. These controls, like signals, often are very difficult to remove because of public pressure. Calhoun County Road Commission has successfully (as of this writing) been able to remove one of these controls.

In 1981 a citizen complaint generated a study of a sub-rural intersection under multi-way STOP control. The control had been there for many years and records as to why the control was instituted no longer existed. The citizen's complaint was that the intersection no longer needed this restrictive control. The Road Commission began studies to objectively review the validity of the multi-way STOP.

Several studies were completed to ascertain volumes, turning movements, accident history, sight distance, and non-renewable energy useage at this location. Each study indicated the intersection no longer warranted the multi-way STOP control. Both of the major road approaches had been reconstructed within the last ten years improving

the sight distance. Traffic counts revealed the major road was carrying three times the traffic as the minor road. The accident history was low. Approximately fifty percent of the accidents were rear-end accidents on the major road approaches.

The Board of Calhoun County Road Commissioners reviewed the study and authorized the removal of the four-way STOP control. Within the week a petition from several concerned citizens was received by the Road Commission. The leader of the petition drive appeared before the Board several times demanding the safety of the intersection be restored by the reinstatement of the multi-way STOP control. The Road Commission held firm as they have to this date.

A twelve month review revealed only two accidents at the intersection. Several attempts by citizens to have the four-way control reinstated have not succeeded. The Road Commission has remained firm in leaving the intersection as a two-way STOP control.

Although this may seem a minor success, anytime the transportation system can be improved by removal of unnecessary controls we should feel our jobs have been successful. By Max Phares.

## MDOT'S USE OF ICE DETECTION SYSTEM

One of the biggest dilemmas that maintenance supervisors face during winter is at what point should maintenance vehicles be sent out to start salting operations. Spreading deicing chemicals when they are not necessary is costly but not getting them out there when they are needed can be even more costly. Particularly troublesome is a condition known as preferential icing of bridge decks; tendency of ice to form on bridge decks before it forms on the surrounding road surfaces. The Computer is starting to attack this problem and become the latest tool in the maintenance foremans garage. In Lansing, Michigan the Michigan Department of Transportation has installed sensors at a particularly troublesome bridge on I-496 near Cedar Street. Sensors imbedded in the pavement detect the presence of moisture and record the surface temperature along with the amount of deicing chemical present on the pavement. Air temperature, relative humidity, and precipitation are also detected at the bridge site and the dew point temperature is calculated. All this information is then relayed to a computer that displays the information on several video display terminals. All changes in conditions are recorded on the system printer.

One of the display terminals is located in the maintenance garage at Mason which is the garage responsible for maintaining I-496. The maintenance personnel use the information to determine if a maintenance vehicle should be dispatched to salt the bridge.

Even during "off" hours the maintenance foreman can get all of this information by calling the computer from his home phone using a portable terminal which is about the size of a portable typewriter.  
By: Frank Spica

Timothy D. DeWitt  
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## NEW GUARDRAIL END TREATMENT SAFELY REDIRECTS VEHICLES

Sentre, a safe barrier end treatment for guardrails, from Energy Absorption Systems Inc., is designed to eliminate the hazards inherent in alternative guardrail end treatments. Sentre provides a redirectional barrier between an errant vehicle and the unforgiving "hard spot" on a guardrail, without the vaulting, ramping and spearing associated with other types of guardrail end treatments.

Sentre has been tested under the strictest federal standards for impacts of both light (1,800-pound) and heavy (4,500-pound) cars. With a unique system of telescoping panels connected to the end of a new or existing guardrail, plus a redirectional cable that guides the interconnected panels sideways, Sentre gently slows and directs an impacting vehicle away from the guardrail hard spot. When struck, the fender panels telescope longitudinally to safely redirect and decelerate cars traveling at speeds up to 60 mph.

A complete Sentre unit consists of fender panels, posts with slip bases, sand-filled boxes that help dissipate the collision energy, and a redirectional cable. The Sentre unit is approximately 17 feet long and 2 feet wide. It weighs 930 pounds. Flared and straight treatments are available.

All major components are reusable after a typical hit, allowing for the lowest possible maintenance cost. This reusability and Sentre's low initial cost make it an economical way to protect motorists from the many hazards posed by guardrail ends.

Every year, nearly 50,000 people die as a result of traffic accidents. Though this figure is steadily declining, traffic accidents remain the third-largest killer of adults in the United States, costing an incredible \$251,100 per death in property damage and lost output. According to the National Highway Traffic Safety Administration, 55 percent of all fatal accidents in 1979 involved small cars, though they accounted for only 38 percent of the cars on the road.

Studies show that 40 percent of all fatal traffic accidents are caused by a single vehicle that strays off the road. In 75 percent of these accidents, the out-of-control vehicle strikes some fixed obstacle (see table).

Collisions with guardrails are the most frequent type of fixed-object fatal accident on interstates and limited-access roads. Guardrails are designed to redirect cars back onto the highway and away from some potential hazard. But because most were designed and installed in an age when heavier, larger cars were prevalent, little consideration was given to their own potential danger to smaller, lighter cars: A guardrail often begins and ends with an abrupt termination that constitutes a deadly secondary obstruction.

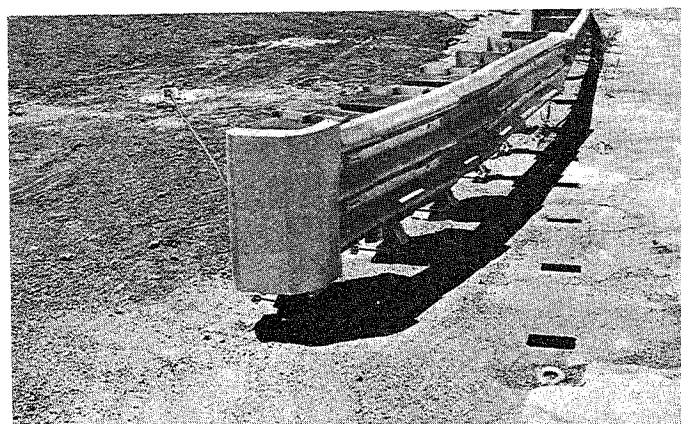
Highway engineers have recognized the danger that guardrail ends pose and have attempted to solve the problem in a variety of ways, which range from simply burying the end of the guardrail to providing a breakaway coupling to the end. Unfortunately, some of the very treatments that have been installed to protect motorists have let to the fatal vaulting, rolling and spearing of vehicles they were intended to prevent.

The National Highway Safety Council reports that in 1981 alone, 18,300 deaths could be attributed to collisions with guardrails. With the trend toward smaller cars -- a trend that continues despite evidence that they are less safe than full-sized models -- untreated guardrail ends pose a very serious threat. Reprinted in part from NHTSA 1980 Fatal Accident Reporting System Data

Fixed Object Fatal Accidents by Road System, 1980

Type of Fixed Object	All Road Systems	Road System							
		Inter-state	Other Limited Access	Other U.S. Route	Other State Route	Other Major Artery	County Road	Local Street	Other Road
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Tree/shrubbery	22.7	4.2	15.9	16.5	22.6	18.8	30.5	25.8	41.8
Utility pole	12.9	2.1	5.7	12.0	12.6	23.4	12.3	19.1	11.2
Guard rail	10.9	41.8	29.4	11.5	10.3	3.1	5.1	4.1	4.8
Embankment	10.4	7.0	5.1	12.8	12.7	12.3	14.3	4.3	13.3
Culvert, ditch	8.3	4.5	2.0	2.7	11.8	1.0	4.4	5.1	6.8
Curb, wall	5.8	1.2	5.7	1.1	6.0	1.0	17.9	4.4	2.4
Bridge, overpass	5.8	1.2	5.7	1.1	6.0	1.0	4.8	3.5	4.8
Sign post	3.5	4.4	5.1	5.4	3.5	2.4	3.3	0.9	4.8
Fence	3.2	1.7	1.0	2.6	1.1	1.1	4.8	2.7	4.8
Other pole support	2.0	2.2	1.9	0.8	1.2	0.3	0.5	2.9	0.4
Light support	1.4	3.6	12.8	1.3	1.1	1.4	0.3	1.3	0.4
Divider	1.3	0.1	0.0	0.7	0.6	2.0	5.8	2.3	3.0
Building	1.0	6.0	5.7	7.1	7.1	6.2	0.7	5.8	6.0
Other fixed object	6.4	6.0	5.7	7.1	7.1	6.2	0.7	5.8	6.0

Source: Based on National Highway Traffic Safety Administration 1980 Fatal Accident Reporting System data



Sentre guardrail end treatment from Energy Absorption Systems Inc.

## NEW FLEXIBLE HIGH-INTENSITY SHEETING FOR PLASTIC SUBSTRATES

As road agencies begin their 1984 construction and maintenance season we can rest assured there will be traffic accidents in the construction workzone.

To help guide motorists through these areas, the 3M Company has developed a new traffic control product which will provide maximum uniform brightness to aid depth perception and vehicle alignment.

This new high-intensity reflective sheeting is 3 1/2 times brighter than engineer grade and is designed to flex with plastic devices (barrels, delineator posts and tubes) and maintain its brightness even after repeated hits.

With this new product, greater durability will be experienced because the top film will not delaminate when impacted, hot or cold. This will avoid the replacement of devices that have been hit and were previously destroyed and also those damaged devices that lose reflectivity. The end result is devices that will be safer, require less maintenance, and will be seen at a greater distance. All devices will have uniform brightness to aid in-depth perception and guidance in addition to providing more cost-effective, safer devices throughout the construction workzone.

By Tim DeWitt

## RAISED MARKERS SHOW POSITIVE RESULTS

Michigan motorists who travel to neighboring states may have seen and taken advantage of a fairly recent traffic safety innovation that provides positive guidance during hours of darkness and, particularly, during periods of rain and inclement weather. These devices which outline lane lines, edge lines, traffic islands, and provide improved guidance are called raised reflective pavement markers and have been in use in snow country since 1977. (Another type of marker has been used in non-snow areas of the United States since 1966.)

So far, Michigan has not yet developed a program to provide these devices to alleviate some of the safety problems on its roads.

The state of Ohio, which has been a pioneer in the use of raised reflective markers, started a program to use them at hazardous locations and have now expanded their use to expressways and limited access roads. For each dollar spent on this type of delineation, Ohio officials estimate a savings of \$6.50 to the taxpayer due to accident reduction.

Illinois has implemented a similar program which includes hazardous road locations and for lane lines on the Tri-State Toll System.

Indiana, in 1984, will be initiating a program covering a two-year span which will include installations on all types of state highways, particularly problem areas.

Other snow belt states, all the way from Oklahoma, Kansas, Pennsylvania, New Jersey and several New England and Eastern Seaboard states, are continuing to use these life saving devices.

Recently, Secretary of Transportation Elizabeth Dole proposed a federal safety initiative to "Improve Highway Safety Through Special Delineation and Pave Markings." This initiative, announced on October 3, 1983, and implemented by Federal Highway Administration memorandum October 25, points out that night time accident rates are three times the daytime rates with 38% of all highway accidents and 57% of highway fatalities occurring during hours of darkness. These data, in addition to the fact that reconstructing all of the current road mileage to modern standards is far beyond the financial resources of all government agencies, led Secretary Dole to recommend that improved delineation was essential to provide as safe an environment for motorists as possible.

### 7TH ANNUAL PRODUCT TECHNICAL SESSION CITY OF SOUTHFIELD, D.P.S. GARAGE

Circle May 17, 1984 on your calendar and plan to attend this years Product Technical Session which should be bigger and better than ever.

Last year 20 vendors displayed their products at one of our best sessions to date. This year more vendors are expected and a larger crowd should be there because city and county officials and purchasing agents are being invited, in addition to the membership of I.T.E., I.M.S.A. and Michigan Parking Association.

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Sign Posts	Parking Meters	Pavement Marking Paints
Sign Fasteners	Traffic Counters	Thermo Plastic Markings
Hydraulic Equipment	Pavement Markings	Plastic Pavement Markings

### PRODUCT TECHNICAL SESSION AGENDA MAY 17, 1984

- 10:00 - Product Session
- 5:30 - Hospitality Hour at "World Headquarters AMC Corp." (Courtesy of Hospitality Fund)
- 6:30 - Dinner at Copperfield's Restaurant (AMC)



# THE 55 NATIONAL MAXIMUM SPEED LIMIT

01' Willie Nelson really has a way with the lyrics. To boost the 55-mph speed limit, he did a public-service spot for the Texas Office of Traffic Safety a while back: "Shotgun Willie likes to save the gas and stay alive, Shotgun Willie likes to drive laid back at 55," he sang.

This is the same 01' Willie Nelson whose record of traffic offenses was so appalling that Texas would allow him on the road only during working hours, which, were deemed to be the period from 4:00 p.m. to 2:00 a.m. Another double-nickel advocate bites the credibility dust.

Poor Willie. We only mention his example because it's typical of the half-truths and loaded statistics used by various government agencies and assorted do-gooders over the last ten years to prop up the 55-mph National Maximum Speed Limit.

We are now past the tenth year of the 55. The slow-down-to-save-gas response of a few states to the first Arab oil embargo in the fall of 1973 was made a temporary federal policy in January, 1974. One year later, Congress voted it permanent.

It's time the citizens looked behind the propaganda to see what's really going on. When you do, you'll find the same bloated claims a self-serving government used in its "body counts" to justify all the good it was doing in the Vietnam War - only this time we motorists are the targets of all the good.

Originally, the 55 was adopted purely to save fuel. As an emergency measure, slowing down had strong appeal; but then the public realized that of all the cars moving about at any given moment, the overwhelming majority were on roads too congested for exceeding 55 in the first place. As a result, the best-case estimates of fuel savings were only about three percent-a trivial amount, the same improvement that would come if every driver made sure his tires were properly inflated. Fuel economy is much more dependent on car design than on car speed.

Supporters of the 55 have had to switch over from fuel saving to lifesaving to justify their position. They all resort to numbers of lives saved. And as we learned in Vietnam, nobody's count is as big as that of a government agency-in this case, the National Highway Traffic Safety Administration.

Everybody starts from the same set of numbers, of course: the annual traffic fatalities before and after the speed limit came into effect. There were 54,052 traffic deaths in 1973, the last year before the 55; the annual total dropped to 45,196 in 1974 and 44,525 in 1975, then rose to 45,523 in 1976, to 47,878 in 1977, to 50,331 in 1978, to 51,093 in 1979, and to 51,091 in 1980; then began dropping again to 49,301 in 1981 and 44,100 in 1982. The first year's reduction of 8856 was dramatic. To Naderites and newspaper columnists who really wanted to cement the speed limit in place, it became the number of lives saved by the 55.

Fortunately, not everybody is so gullible. A lot of things changed from 1973 to 1974: the fuel shortage caused a drastic reduction in miles driven, government-required safety equipment was being added to new cars for the sixth consecutive year, continuing reconstruction made highways safer, and traffic-law enforcement nearly doubled, judging by the number of tickets written. It's clear that a lot more was going on than just a 55-mph speed limit.

Academics from various universities and think tanks, and bureaucrats from various government agencies, began sorting through the data to see what could be realistically credited to the 55. The going was rough. It was like trying to figure how many angels can dance on the head of a pin-not only does nobody know, nobody even knows how to find out. But the estimates started piling up. A study from the University of North Carolina thought it probable that about a quarter (2215 on a national basis) of the reduction in fatalities could be credited to the 55. The American Association of State Highway and Transportation Officials said 35 percent (3100). Robert Binder, in Traffic Engineering, said 3190. Chu and Nunn, extrapolating from a California base, said 3900. Enustun, Nejad, and Yang decided 3800 lives were saved. And the National Safety Council-which has been on a slowdown campaign forever,

so you would expect its estimate to be high-settled upon 4800. The federal government's own NHTSA originally talked numbers around 4500, far higher than the estimates by the universities and the state officials. Then in June 1977 it raised its guess to 6000. And as Carter's presidency continued to bog down, with rampant inflation at home and the ayatollah holding Americans prisoner in Iran, the speed limit was used as a political diversion. Joan Claybrook shrilly announced in October of 1979 that her NHTSA had rejuggled the numbers and, actually, 7532 lives had been saved the first year, and that a total of 41,951 innocents had been kept from their graves through 1979 by the 55-mph MSL.

This figure-"estimate" would be giving it too much credit-is so transparently bogus that when you challenge the NHTSA spokesmen on it, they back down immediately. "Well, it's kind of a maximum possible," they say. It comes up as "lives saved" in the New York Times, in the Washington Post, in USA Today, on television, over the radio, and in the local paper. To continue the good work, Claybrook was giving \$50 million a year to state and local agencies to enforce the double-nickel.

The media repeat these inflated body counts mostly because the reporters don't do their homework. The April, 1981 Digest contained a particularly effective piece entitled "Fifty-Five Is Fast Enough," particularly effective because it was bylined by Roger Penske and used his winning reputation as a race driver and team owner to set him up as an expert witness who could shout down all the growning criticisms of the 55.

The Reader's Digest hung up on us when we called to suggest that they might have affixed Penske's name to somebody else's work. The piece was requested by Reader's Digest management and written by Gerald m. Bastarache, a media flack at the Highway Users Federation in Washington, D.C., which is a lobby of businessmen who benefit from the nation's highways. They press for legislation favorable to their transportation interests and occasionally support politically popular causes such as the 55, so as to have a few bargaining chips in their lobbying. And they can stick Roger Penske's name on an article created for the Reader's Digest because he's the chairman of the Automobile Safety Foundation, an affiliate of the Highway Users Federation.

All these conspirators-the Highway Users Federation, the Reader's Digest, and Penske-fit together neatly here because they all find it good business to support the 55. Whether or not the limit works as advertised is not something they've given much thought to.

The NHTSA and the media spray out wildly optimistic claims of lives saved and then poll the public on what it thinks about the speed limit. Inevitably, somewhere around 75 percent of those polled support the 55 to some degree because, it "saves energy and lives." But what should we expect a brainwashed public to say? These responses are then used to justify further the 55: if the public supports it, it must be good.

There's a funny thing about that support: In a 1982 Gallup poll that showed 76 percent in favor of the limit, 29 percent admitted they had been stopped for speeding. How many more just haven't been caught? Glendon B. Craig, former commissioner of the California Highway Patrol, said that the number of tickets written by his department went up from 600,000 in 1973 to about 1.1 million each year since the 55-mph speed limit went into effect. Moreover, he said that for every violator written up, 22,000 go unapprehended. How was that again about public support? In the one poll we know of where the police were asked to estimate public support, they put the figure at about 30 percent. The part of the population in favor of the 55 apparently says one thing with its mouth and another with its foot, which doesn't contribute much to its credibility on the subject, either.

The government's misinformation campaign on the speed limit also includes the way it saves lives. Speed reduction is given all the credit: "Speed Kills-Slow Down and Live." But most traffic experts, even those within the NHTSA when they drop the party line, say it's not so much average speed as it is variation in speed from one vehicle to

# DRUNK DRIVERS

A number of things are happening in the State and nationally regarding drunk drivers which I think you should be aware of.

First, the National Commission Against Drunk Driving was recently established to carry out the recommendations of the Presidential Commission on Drunk Driving which expired December 31. It consists of 21 members and is chaired by John A. Volpe, former U. S. Secretary of Transportation.

The commission will act as a semi-autonomous, non-governmental, non-profit public service organization affiliated with the National Safety Council. At the commission's first organizational session, the following goals were announced in addition to its main mission:

- o To work with state legislatures and other governmental bodies to develop new laws to carry out recommendations of the Presidential Commission;
- o To make the public more aware of the menace of drinking and driving; and
- o To work with the nation's news media to encourage more attention to the problem.

Volpe said that ultimately the commission hoped to change society's attitudes and behaviors about drinking and driving from one of tolerance to one of rejection of drunk driving.

Secondly, the Michigan Legislature recognized the drunk driving problem by establishing a State Task Force on Drunk Driving. This task force has parallel goals to the national commission and is composed of 23 members. It is chaired by Judge Kenneth H. Hempstead of the 51st District Court.

Third, in line with these objectives the Michigan Task Force on Drunk Driving conducted five public hearings during the month of February on a proposed plan to deter drunk drivers through the use of sobriety check lanes. Hearings were held at Grand Rapids, Gaylord, Negaunee, Allen Park and Lansing. The sobriety check lanes would work as follows:

- o They would be used primarily on weekends, mostly between the hours of 9:00 p.m. and 3:00 a.m., when drunk drivers are most likely to be on the roads;
- o General areas where the check lanes would be in operation would be identified, but specific locations would not be identified;
- o The check lanes would be well lighted and drivers would have plenty of time to safely slow down and stop at the check points;
- o Drivers would be detained no more than the average time they would be stopped for a traffic signal;
- o Officers at the check points would look for telltale signs of drunk driving, such as slurred speech or bloodshot eyes. If such signs were not apparent, drivers would be asked to submit to a roadside breathalyzer test;
- o If drivers appear to be sober, they would merely be advised of the purpose of the program, handed a piece of literature explaining the state's drunk driving laws, and be sent on their way.

The Michigan Task Force on Drunk Driving will consider all testimony given at these public hearings at its March meeting.

Watch for further details in future Michiganites. Gary Holben, OHSP

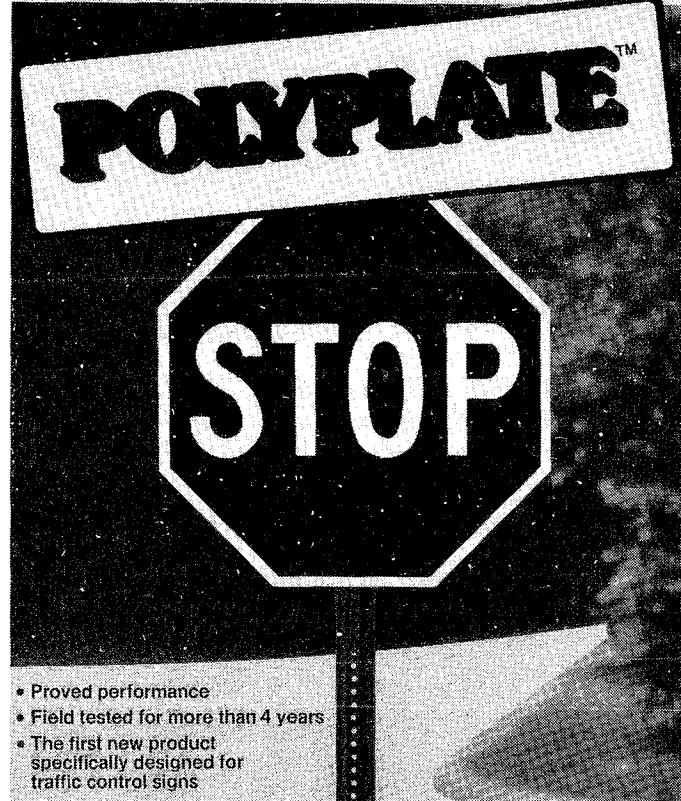
# FHWA DEMONSTRATION PROJECT MICRO-COMPUTERS AND TRAFFIC ENGINEERING

The Michigan Department of Transportation will sponsor a microcomputer workshop the week of June 4, in Lansing. The workshop will consist of a one and 1/2 day course with lectures, presentations, and hands on demonstration with six different types of microcomputers and considerable application software. There will be no fee and lunch is included.

Purposes of the project are to orientate state and local traffic and to demonstrate the usefulness of micro-computers for traffic engineering tasks.

More complete details will be available prior to the workshop, but participation is expected to be heavy, so call Bob Maki or his secretary at MDOT, Traffic and Safety at 373-2333 to sign-up. By Bob Maki

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# REBUILDING THE U.S.

This might not seem the best time in the nation's economic and political history to say it, but Marshall Kaplan is saying it anyway:

If the nation's federal, state and local governments would just spend an extra \$200 per American each year for the next two decades, the national pothole problem would be solved, along with the national bridge problem, the national water problem, the national airport problem - in fact, all the chronic asphalt-and-cement problems described by the forbidding word "infrastructure."

Kaplan, dean of the University of Colorado graduate school of public affairs, directed the first detailed national study of the country's infrastructure needs for the rest of the century.

Surprisingly, the project's researchers and directors have concluded something that most past students of decaying highways, bridges, water and sewer systems haven't.

What they said in a news conference in Washington Friday, and plan to say in a hearing next week before the Joint Economic Committee of Congress, which commissioned the study, is that the infrastructure problem is "manageable." Not simple, but manageable. And not cheap, but nothing like the staggering cost estimates that have come before.

"Nobody had any numbers worth a damn," Kaplan says. "It was \$3 trillion, \$2 trillion, \$5 trillion, depending on who was doing the counting." Kaplan's number: \$440 billion. That is the projected gap between what will be needed and what would likely be spent by the end of the century to build and maintain basic service facilities in the country. "Take that over 18 or 20 years, and it's about \$20 billion a year for the country," he says. "That is clearly within the competence and imagination of the population and the public sector...Our figures look manageable." Not only manageable, but also important. His report warns that unless action is taken, "the nation will suffer a reduction in its economic development potential, productivity and jobs."

The study group worked on the needs of 23 states that volunteered to participate. (Michigan was not among them.) Based on that data, the researchers determined that governments at all levels need to spend about \$1.15 trillion in infrastructure work in the rest of this century, but probably will spend only about \$710 billion unless steps are taken-hence the \$440 billion shortfall. But is anyone interested in spending that kind of extra money in these no-frills economic times? "I think it's become a crucial issue for governors and mayors," Kaplan says, "and those congressmen whose states really feel it are aware of it."

Further, he says, the politics are right, because the problems are so common across the country that, if all the crumbling pavement and pipes were fixed, no region would be favored.

Massachusetts needs new water lines as much as Oklahoma needs more water. New York needs as much work on its mass transit system as California needs on its roads. The study found that there is a certain balance to the issue:

What Midwestern and Northeastern states need to repair old facilities, many Southern and Western states need to keep up with growth, and every state needs more money than it has to conduct capital repairs and development.

And from such a unanimity of need, Kaplan hopes there will come a kind of governmental interest that creates a well-planned and well-financed program to keep the underpinnings of transportation, water and sewerage from continuing to fall apart.

The main reason such a need has grown is that the commitment to capital spending by government has been declining in recent years, even as the infrastructure problem has been getting worse. It hasn't been solely a product of economic decline or governmental shortsightedness. One of the less apparent effects of the energy crisis and the fuel conservation trend that followed, for example, has been a dramatic slowing of the growth of state and federal highway funds. That is because they are drawn from gasoline tax revenues, and those taxes aren't levied on dollars spent, but on gallons bought - a figure that has been going down since the last 1970's.

Whether caused by budget constraints, legislated spending limits, governmental inattention, public apathy or other obstacles, the study found that today, 45 percent of the vehicular bridges in the country "are either deficient or obsolete." It continued, "Over half the nation's two million miles of paved highway require early attention. Similarly, one-third of the Interstate Highway system appears in need of repair." The greatest needs are in the Midwest, where researchers found particular deficiencies in highway maintenance and wastewater treatment. Ohio, for example, was predicted to have an infrastructure revenue gap of \$44 billion in this century, greater than bigger, more populous states like Texas and California, and possibly even more than New York.

To deal with the problem, the study committee recommended that the federal government:

Create a national infrastructure fund through which loans could be made to state and local governments with infrastructure problems exceeding their resources.

Loosen restrictions that prevent recipients of federal money from such sources as the Environmental Protection Agency from using that money to best advantage.

Reconsider existing technical standards for highways, water treatment and delivery systems to see if they make sense. Kaplan mentions excessive minimum pavement widths and requirements for sidewalks on both sides of subdivision streets as types of regulations that might be too expensive to retain.

Make more sense of federal budgeting procedures so the amount of money available for infrastructure maintenance is clear and measurable, and the size of unmet needs can be seen readily.

Says Kaplan: "America operates on a policy of public fad...The War on Poverty...Model Cities...the energy crisis...the environment. We don't have sustained staying power. We need a 20-year commitment that has to be sustained through several Congresses."

By Gary Blonston, Free Press Western Bureau

and the National Committee for Uniform Traffic Laws and Ordinances. The Department also provides a liaison between Technical Council and other ITE activities such as the Publications Advisory Committee and the Energy Coordinating Committee.

The Technical Council normally has three one-day meetings per year. The first is held in conjunction with the Transportation Research Board meeting in Washington, D.C. each January. The second is scheduled for late Spring, and the third is held in conjunction with the ITE Annual Meeting in the Fall.

## THE 55 NMSL *cont.*

another that really makes the difference. They all quote the famous Solomon study that says the accident rate is about the same whether the average speed is 55 or 60 or 65 or possibly even higher, as long as traffic maintains a relatively uniform pace. The 55-mph speed limit just happens to be a convenient way of compressing the variation in pace.

Convenient, yes, but the slowing-down part imposes very real costs that don't justify the results. Charles A. Lave, chairman of the economics department at the University of California, Irvine, calculated that it "costs 102 man-years of wasted time to save one life" with the 55. He concluded that more mobile cardiac-care units, or more kidney-dialysis machines, or smoke detectors in more homes, would save more lives at far less cost.

Lave's view is typical of those who performed their calculations without benefit of government contracts. In *The Optimum Speed Limit*, a self-financed report from the Public Research Institute, a Washington think tank, the authors concluded that "the optimal speed limit is well above 55 mph and the speed limit is an expensive way to save lives. There are better opportunities for life saving elsewhere." To quote yet another source, C. Clotfelter and J. Hahn of the University of Maryland:

## YOU BE THE JUDGE

Let's, just for a moment, give the NHTSA bureaucrats the benefit of the doubt. From 1973 to 1974, highway fatalities dropped from 54,052 to 45,196, a reduction of 8856. They'd never seen a reduction even a third as big before, and it was their job to explain it. The 55-mph limit was new, and it was the highest-profile program of the federal government that year, so, not surprisingly, it was given the bulk of the credit.

Okay, they looked at the data and drew their conclusion. Now let's look at the data ourselves, plus the data accumulated in the last nine years, and apply our own common sense. The first thing we must remember is that 1974 was not a normal year. The first Arab oil embargo was in full swing. Fuel was in short supply. People drove fewer miles; naturally, they were less likely to crash, so the data should be corrected for miles driven. The government has a statistic that takes this into account: deaths per 100 million vehicle-miles. Sure enough, that figure dropped from 4.12 in 1973 to 3.53 in the following year.

But it also fell further to 3.35 in 1975, when there was no new speed limit, and further still to 3.25 in 1976. Moreover, it had fallen continuously for eight years before the imposition of the speed limit. And the general trend has been sharply downward since the 18.2 level in 1925, when the data were first recorded. This didn't happen inadvertently, either. We've spent an enormous amount of money to build safer highways, to add government-mandated safety equipment to new cars, to provide better driver education, and to increase traffic-law enforcement. If deaths did not continue to decline, those programs would be a waste. But the fact that deaths after the imposition of the speed limit continue to decline very much on the long-term trend line suggests that the 55 is an insignificant factor.

What else could be responsible? Let's look for clues. Another huge drop in fatalities took place from 1980 to 1982: from 51,091 in 1980 to 49,301 in 1981 to 44,100 in 1982, the lowest figure in almost twenty years. The death rate per 100 million vehicle-miles dropped to 2.80, the lowest figure ever! Even though this safety improvement looks much like the one that occurred in 1974, you can't very well give credit to the new speed limit, because it wasn't so new in 1982. Something else must be responsible.

In looking for similarities of any sort between 1974 and 1982, one fact stands out. Both were years of serious economic recession. Probing deeper into this phenomenon, you find that every recession since World War II has been accompanied by a temporary reduction in highway fatalities.

"Indeed, a speed limit appears to be a second-or third-best policy for achieving both safety and conservation goals."

Hmm, second or third best. Maybe that's why former president Jimmy Carter, came down so squarely in favor of the double-nickel. "I think the law should be enforced," he said at a town meeting in Oklahoma late in his presidency. "I think it saves a considerable amount of energy, and I also think it saves a considerable number of lives."

This is the same Jimmy Carter whose limousine, with him in it, just a little later in his presidency, was timed at an average of 72 mph for the 21.5 mile trip from Metro Airport to the Detroit Plaza Hotel. he didn't want to be late for a campaign appearance. one more double-nickel advocate-and the most sanctimonious of them all-bites the credibility dust.

It's time to get rid of the scheme that's making our public highways a third-rate system of transportation. Ronald Reagan, you may remember, was elected on a platform pledged to eliminating the 55. It's time we reminded him of some important work he has yet to do. Ten years of hypocrisy is too much. Reprint from Car and Driver

If you plot the Industrial Production Index, which is an indicator of economic vitality, and the traffic-death toll side by side, you find they move up and down in nearly perfect harmony. In contrast, traffic deaths and the speed limit show no correlation at all. Deaths also very inversely with unemployment: as job losses go up, highway deaths go down.

These indications track too well to be coincidental. The data suggest overwhelmingly that slowing down is not the lifesaver. Instead, it appears that something about drivers' attitudes in times of recession causes them to have fewer fatal accidents. Interestingly, we're not the only ones who have discovered this relationship. The NHTSA has a study all ready to go on the subject, but it will not release the material until "the administrator decides to do so," we were told by one spokesman. When asked when that would be, he said, "Maybe never."

Obviously, advocating a speed limit to save lives is politically shrewd. Advocating a recession to save lives would be political suicide. But as long as we blindly give credit to the 55, we will never understand exactly what it is about driver attitude that profoundly affects the death rate. Looking at the data, you'd say the bureaucrats don't really want to save lives; they just want to save their programs. Reprint from Car and Driver

## FROM OUR READERS ...

Editor's Note: The Michiganite has always had the policy of printing all articles and comments. No topic has received such response by the membership as the 55 mph speed limit. Below are some comments mailed or phoned to the editor regarding the 55 mph NMSL: ● "Never has anything of this impact been done without any research on data." ● "If the 55 is credited with saving all those lives, what can the yellow book program be credited with?" ● "The feds give us 55 mph compliance standards then give us fudge factors to ensure that all states meet their standards." ● "How can they credit the 55 NMSL with saving all those lives when so few fatalities occurred on roads that were posted greater than 55?" ● "It's about time ITE did an objective study in Michigan - it would make a great technical project."

## BEAUBIEN APPOINTED TO TECHNICAL COUNCIL

ITE President Melvin B. Meyer has appointed Troy Transportation Engineer Richard F. Beaubien, P.E., to the Institute's Technical Council. The objectives of the Technical Council are to encourage, promote, and organize the research and technical activities of the Institute and make research findings, practices, warrants, and techniques available in published form.

Beaubien will be Chairman of Department 1, Technical Affairs Liaison. This Department represents ITE on the National Committee for Uniform Traffic Control Devices

# DO ADVANCE SCHOOL FLASHERS REDUCE SPEEDS?

In 1982 the Michigan Department of Transportation conducted a study of the school crossing on M-46 in front of the Carsonville Elementary School. Carsonville is a small community located eight miles east of Sandusky in Sanilac County. The study was requested by the school superintendent with a specific request to install advance school warning flashers on M-46 to reduce the speed of highway traffic passing through the school zone. The flashers were installed in January 1983.

Since the basic request for the flashers was based on the assumption that lower vehicle speed would result after their installation, the last recommendation in the study was that the traveling speeds be checked after the flashers were installed to see if speeds did in fact decrease. The speed checks indicated that both the 85th percentile speed and the average speed INCREASED after the flashers were installed.

The speed surveys were taken by timing a vehicle traveling through a measured length of roadway. The center of the painted school crosswalk and the painted legend "SCHOOL" facing westbound M-46 traffic east of the school were used for the speed measurement area. Vehicles driving this 632-foot section of M-46 were timed with a stop watch and the times noted were translated into miles per hour.

Three dates were used for the surveys:

Date A was Tuesday, May 18, 1982. On this date, the original study was still in progress and no corrective traffic control measures were in place yet. This data forms the base on the "before" information.

Date B was Tuesday, October 5, 1982. By this date, the parking restrictions were in place, the crosswalk lines repainted and the no parking lane painted.

Date C was Tuesday, October 18, 1983. By this date, the flashers were installed and all of the existing traffic control devices were in place.

On each of the three observation dates, two distinct time categories were utilized. The first time frame was between 2:15 p.m. and 2:45 p.m. During this time, there was no school crossing activity taking place. The second time frame covered 2:45 p.m. to 3:15 p.m. During this time, there was much visual activity in the crossing area. Children were crossing M-46, the adult crossing guard was present and stopping traffic with a handheld STOP paddle and, on date C, the school crossing flashers were actuated. This breakdown was done to test the theory that motorists will naturally slow down when they can see an activity taking place. If, through lack of activity, they don't perceive a need to slow down, they

will not do so despite the presence of speed limit signs, warning signs and flashing signals.

Between 40 and 50 vehicles were timed in each period. Two speed figures were computed: the average speed of the vehicles which was determined by totaling all speeds and dividing by the number of vehicles, and the 85th percentile speed which is the speed at which 85 percent of the motorists are driving at or below. The 85th percentile speed is used in Michigan to determine the speed limit.

Using the A, B, C date code mentioned earlier and the suffix 1 for the no-activity 2:15 - 2:45 p.m. period and the suffix 2 for the activity 2:45 - 3:15 p.m. period, the 85th percentile speeds and average speeds for each time period was as follows:

TIME PERIOD	85TH PERCENTILE	AVERAGE SPEED
A 1	41.43 MPH	36.495 MPH
A 2	39.30 MPH	35.113 MPH
B 1	39.90 MPH	35.728 MPH
B 2	40.01 MPH	36.476 MPH
C 1	41.43 MPH	36.425 MPH
C 2	41.43 MPH	35.519 MPH

Of principal concern to school officials are those figures that covered the time period when children were actually present and crossing M-46. These time periods were A 2, B 2 and C 2. Period A 2 illustrated the traffic speeds that were in existence prior to any action taken as a result of our study. C 2 showed the speed that traffic traveled with the advance school flashers in operation and the crosswalk visibility improved by parking restrictions and pavement markings. Both the 85th percentile speed and the average speed INCREASED after the flashers were installed. This is in direct contrast to the results that school officials hoped for when requesting the flashers and would appear to indicate that school flashers are not an effective device in reducing speed through a school zone. The department does believe that they perform the function of advising the motorist as to when he can reasonably expect to see student crossing activity in front of the school and be alert to take whatever defensive driving measures are required to insure student safety. Because this latter function is very important, the department will continue to use school flashers and will retain those in Carsonville. The only thing the department can conclude from this study is that school flashers are not a speed reduction device and should not be used in the expectation of achieving that result. By David Van Hine MDOT Saginaw

## Notes...

EDITOR'S NOTE: No engineer wants to be grilled by reporters during the most traumatic period of his or her professional career - after a major disaster. Marvin Davis, Public Affairs Officer for the Federal Emergency Management Agency, has provided the following pointers to be followed when responding to reporters after a major problem has occurred.

**Prepare yourself.** Prepare yourself for the interview. Remember that the reporter is not an expert on the subject and may not have a grasp of the important issues. Tactfully point them out to the reporter.

**Ask reporter.** Ask the reporter to give you an idea of the general line of the questions before the interview begins. You will have a better understanding of the overall direction of the interview but be ready for other questions which the reporter may think of during the interview.

**Prepare answers.** You will probably know beforehand what the general trend of the questions will be. Prepare your answers. Try to package your answer into 30-second responses to minimize the chance of editing. Use analogies which can be easily understood by the public.

**Be honest.** Give honest and straightforward answers but don't be too candid in your responses. Remember that anything you say can be quoted, even the unguarded responses after the formal interview is over.

**No comment.** Don't use the terms "No comment" or "Don't quote me on that." You will appear to be evasive and possibly trying to hide something. And don't speak to a reporter "Off the record." Your comments may be too good to keep off the record.

**Keep calm.** Don't lose your cool. The chance of an unguarded comment or response is too great in that situation. The public will expect you to remain calm even if you are provoked. It conveys the idea of professionalism and competence.

**I don't know.** Don't be afraid to say "I don't know." But if it appears that you should know the answer, then that may be news. If you don't know the answer, offer to get back to the reporter before his deadline. Don't try to answer a question which is outside of your expertise.

**Record answers.** It may be necessary in a potentially unfavorable interview to record the interview. Advise the reporter of this beforehand. This will provide more incentive for the reporter to be scrupulously accurate and, additionally, it will provide you with evidence of gross inaccuracies.

**First things first.** Get the most important facts out first and then elaborate. If these facts are left to the end

as a conclusion they may not survive the editing process. **Bad question.** There are no unfair questions--only unfair answers. But if the question does not get to the key issues which you think need to be addressed, you can still get your answer in by saying, "More to the point . . ." and then following up with a question of your own.

**Just the facts.** Stick to the facts that are pertinent to the case and don't stray. Don't try to evade the key issues with vague and unresponsive answers. And don't try to embellish your role.

**Single reporters.** Make every effort to deal with reporters individually and not in groups. Reporters, being human, often play to their associates to the detriment of the person being interviewed. The chances of a fair portrayal of you and your organization will be better in a one-on-one situation.

**Eye contact, etc.** Look directly at the reporter and not the camera. Ignore any distractions and keep good eye contact. Do not wear sunglasses and be aware that 'photo-gray' glasses darken under television lights--if possible, take them off. Look your profession and your role. Don't dress up if denim and boots are the uniform. Avoid broad gestures with the hands and arms which will probably be out of the frame of the camera anyway.

**When finished.** When finished, shut up! Give your answer in a clear and concise manner and then stop talking. Often a reporter will leave the microphone in front of you for a moment to see if you have finished or to encourage you to keep talking. Don't! The more you talk, the more chance you have of giving away information that you don't want out.

**Legal liability.** Avoid providing any information that could be construed as accepting responsibility which may result in legal action. Videotapes can be subpoenaed as evidence in court. Enough said?

**Don't ask.** After you have talked to a reporter, for any reason, don't ask to see the story before it is aired or appears in print. The answer will almost always be 'no', so don't embarrass yourself.

**Any recourse?** If the story, when it appears, contains gross inaccuracies or misquotes, tell the reporter. If you have a tape of the conversation, your case will be airtight. You might also approach the editor. He will want to know if one of the reporters is not doing a professional job. But don't be too picky and don't expect a retraction. The best you can hope for is a "clarification" in the next story.

## IMSA TO TEACH SOLID STATE SCHOOLS

The International Municipal Signal Association, Michigan section, with a grant funded through the Macomb County Road Commission, from the Office of Highway Safety Planning will be teaching a series of schools on Solid State Pre-Timed Traffic Controllers. These schools are basically designed for the field and shop maintenance personnel the course outlines is as follows:

- I. Retro-fit Type
  - A. Functional Specifications
  - B. Receiving
  - C. Installation Instructions
  - D. Front Panel Indicators
  - E. Front Panel Operating Instructions
  - F. Input Modifiers
  - G. Offset Correction Methods
  - H. Reading Signal Plan Charts
  - I. Making Signal Plan Charts
  - J. Using The Computer -Aided E Prom Programming
  - K. Circuit Board Tracing
  - L. LT-173 Load Switch
  - M. Terminal Facility
  - N. Trouble Shooting
- II. Shelf Mounted Type
  - A. Functional Specifications

- B. Receiving
- C. Installation Instructions
- D. Reading Signal Plans
- E. Front Panel Operation Instructions
- F. Inputs
- G. Outputs
- H. Conflict Monitor
- I. Load Switch
- J. Flasher
- K. Flash Transfer Relays
- L. Terminal Facilities
- M. Trouble Shooting

The locations and dates are as follows:  
March 27-29 Hoffman House Warren, Mich.  
May 1-3 Ramada Inn Lansing, Mich  
Sept. 18-20 Holiday Inn Howell, Mich  
Oct. 16-18 Hoffman House Grand Rapids

Registration will begin promptly at 8:30 A.M. The Schools will begin at 9:00 A.M. each morning and conclude at 4:30 P.M. each day. All classroom materials including paper, pencils, testbooks, tools, etc. will be provided. Two coffee breaks and lunch each day will also be provided.

Overnight accommodations, breakfast and dinner must be arranged for by the student at his expense.

## FHWA STUDIES DESIGN OF FLAGGER'S VEST

FHWA recently published a report on a study that they have done to evaluate the effectiveness of various types of flagger vests. The purpose of the report is to provide a more complete description of flagger vest design than is now contained in the MUTCD which simply states that "the use of orange clothing such as a vest, shirt or jacket shall be required for flagman. For nighttime conditions similar outside garments shall be reflectorized."

The FHWA study included reviewing current literature, photographing on-the-road flagging operations, collecting and examining currently available types of vests and finally testing design solutions by actual observations of tests under day, dusk and night conditions.

The results of the evaluation was to develop the following description of the ideal vest:

Color - For day use, fluorescent orange is the best

color. As compared to yellow, green and blue the orange hue has been shown to have greatest conspicuity.

**Reflectivity** - For night use white or silver colored en-capsulated or cube corner retroreflective trimming should be used. All sides of the flagger vest must be reflectorized.

**Retroreflective Pattern** - The retroreflective tape pattern should outline the flagger's figure. Plain horizontal or vertical stripes do not identify a flagger. A minimum pattern would display the form of the vest by outlining the edges with inch wide tape.

In addition, the study recommends that for night use the 2 X 2 foot flags must be outlined by an inch wide margin of retroreflective tape.

Copies of the complete study are available from the National Technical Information Service, Springfield, Virginia 22161. Ask for Report No. FHWA/RD-83/008. Reprinted from ATSA Signal. By Don Wiertella