MICHIGANITE

SUMMER 1983 VOLUME XVIII NUMBER 2

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

Michigan Section Wins International Award - *Again!*

PRESIDENT'S COLUMN

IMPROVING THE EFFECTIVENESS OF TRAFFIC ENGINEERS

by Dick Beaubien

A small group of Michigan Traffic Engineers has been meeting to find ways to make Traffic Engineers more effective in their jobs. After reviewing the job responsibilities of a typical Traffic Engineer, this group concluded that Traffic Engineers should be spending more of their time on the communications and management functions of their jobs. Communications and management skills are not typically included in the Engineer's training, and the Michigan Section of ITE will be including some of this kind of training in its future programs.

In 1947, C. E. Wilson said that in the future, engineers would increasingly be the leaders of society - that in fact, the future survival of society might depend on engineers stepping up to positions of leadership. He felt that the rational, objective, intelligent, problem solving approach and usually altruistic motivation of the Engineer fitted him or her for this future leadership role. Since 1947, some things have happened in the field of human behavior studies to make it possible for C. E. Wilson's prophetic dream to come true. First of all, we now understand the typical engineer's personality characteristics and its unique strengths and weaknesses. In addition, we know how to teach engineers to overcome the weak elements in their personality profiles and become effective communicators of their engineering insights and effective leaders.

Professor Lee Danielson said 1960 in his book "Characteristics of Engineers and Scientists" that Engineers are more responsible, objective and involved in their work than others, as well as more ambitious, creative, analytical, introverted, and emotional. His study also indicated that the training Engineers receive makes us more critical, creative, self-confident, individualistic, self-directed, competent, and insensitive to human relations factors. We are taught to be right, not relational. More recent studies confirm that Engineers are heavily task oriented and high in achievement, but lacking in people orientation. Our oppositional tendencies grow out of a probing, analytical bent.

The positive characteristics make for powerful leadership potential,and we now know that human relations and leadership skills can be taught,so that typical weaknesses can be overcome. Once these weaknesses are overcome, unusually powerful leaders can be developed.

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SECOND TECHNICAL AWARD IN FIVE YEARS

We were advised recently that the efforts of our section to promote use of child restraints--summarized in the report "Child Safety on Michigan's Highways....A Solution" has been designated the outstanding section project by the Institute of Transportation Engineers.

Receipt of this prestigious award is the culmination of substantial time and effort by many section members and the commitment of our organization's financial resources. The many section members who staffed the public information booths on their own time and those who took the time to write their legislators in support of mandatory child restraint legislation should be especially proud of this award.

The report will be presented at the international meeting in London, England this August and will be printed in the September ITE Journal. We will try to secure copies of that article for distribution to anyone without access to the ITE Journal.

Elsewhere in this issue of the Michiganite you will see evidence of the final phase of the project, donation of seats to loaner/rental agencies. There are not enough seats available for loan or rental. The need is particularly acute in agencies which serve low income families. They need our continued help! The section executive board would like to collect used car seats to distribute to these agencies. Don't sell yours at a garage sale for a few dollars to one of your neighbors who can probably afford one. Give it to someone who otherwise may not have access to one. The tax deduction would probably be nearly as great as what you could sell it for anyway. If you have a seat and would like to donate it, contact Bill Lebel at the Department of Transportation (517) 373-2310. Bill will make arrangements to pick up your seat and donate it to a worthy agency in yours and the section's names.

May 5, 1983

Dear Mr. Lebel:

I would like to thank you and I.T.E. for the toddler safety car seat you have donated to us. Your generous gift will be greatly appreciated by those who use our services.

Once again, our sincere thanks!

Connie Mann

Cristo Rey Center
Lansing, Michigan

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IMPROVING ENGINEERS' EFFECTIVENESS

Engineers need to recognize the power of self-actualization as they develop their management and leadership skills. Self-fulfillment or self-actualization has infinite motivational potential. It does not reduce as do the other needs when they are satisfied. Progress in self-fulfillment can be seen as status consciousness, critical cynicism and territorial prerogatives are replaced by enthusiasim, perseverence, endurance, and the ability to see the positive elements in people and situations while not denying the reality of the shortcomings. Another dimension of self-fulfillment is openness to new truth and continuous learning and growth throughout life. This averts the all to common tragedy of those who stop growing, lock into a static view of life, and create a roadblock in a growing organization.

Another fruit of self-fulfillment is equanimity - the ability to keep one's cool under fire - a major requirement in leadership. Actual tests have shown that anxiety not only causes physical damage, but temporary memory loss and inability to use one's native intelligence. Trial lawyers and labor negotiators have known and used this fact for years. Still another dimension of self-fulfillment is courage, endurance, and persistence. Two other qualities should be developed in those growing toward the top leadership positions requiring quite advanced levels of self-actualization. One quality is the ability to understand and relate to all kinds of people without narrow prejudice or antipathy. The other is to be able to recognize the talents and capabilities of people so as to fit them to jobs where they will be effective and can grow and fulfill themselves - a critical management function.

We need to encourage our educational institutions and professional societies to include training in communcations and human relations skills, the personal and career development skills, and the values and ethics that give it all meaning and purpose. People will only follow a leader whom they can trust and who has integrity. Perhaps the leadership void that we all have noticed in recent decades is that still point in time awaiting the emergence of a new kind of leader - one who first wants to serve his fellow man, and then learn the skills to lead effectively. As past ITE President Harold Michael has noted, Traffic Engineers must assume the role of community leaders to be effective. The Traffic Engineer seeking to be more effective in his job, therefore, should take steps to improve his communications and leadership skills.
By Richard F. Beaubien, P.E.

UPCOMING MEETINGS

TECHNICAL-FAMILY WEEKEND

The Mt. Pleasant Holiday Inn will again be the sunny scene of this meeting. Bring the spouse and kids on Friday, July 29. There will be a short technical meeting on Friday 1:00-4:00. The whole family then can enjoy the pools, golf course, sauna, whirlpool, raquetball and tennis courts. On Saturday there will be a Board Meeting to discuss upcoming events.

INTERNATIONAL ANNUAL MEETING

This years meeting will be in London, England from August 14-18. Technical tours are planned the following week in Scotland and Europe.

GRAND RAPIDS MEETING

The Annual Golf Meeting with IMSA will again be held at Lowell on September 8. So keep your head down and your spirits up.

DISTRICT ANNUAL MEETING

Again Michigan was asked to host the District Annual Meeting and Technical Session. It will be on September 29 & 30 in Dearborn. As always it will be an educational and interesting meeting.

SECTION ANNUAL MEETING

The Engineering Society of Detroit will be the scene of this meeting on December 1. There will be a technical meeting and the installation of Section officers for 1984.

MICHIGANITE

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Michigan Section
Institute of Transportation Engineers

MICHIGAN SECTION ITE, TREASURER'S REPORT

Receipts:	
Bank Interest	$ 13.12
Dues	652.00
March and April Meetings	418.48
Vendors' Day	1,850.00
	$2,933.60
Expenditures:	
Postage	$ 377.98
Printing	263.18
Michiganite	544.60
Supplies	67.16
Child Seat Donation	166.28
President's Annual Meeting Expenses	567.00
Technical Council Reimbursement	100.00
	$2,086.20
Balance: May 18, 1983	$3,594.61

Treasurer, Bob Lariviere, 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

MARCH TECHNICAL SESSION

Jonathan R. Crane, Manager of Traffic Engineering with Professional Engineering Associates, Inc. in Birmingham, Michigan, presented a report on Litigation and the Traffic Engineer at the March Technical Session. The report, a collection of articles by John and others, focuses on the role of the engineer in litigation. In his remarks presenting the report, John said preparation for a court appearance is the most effective work you can do. Experiencing a good feeling after a trial is the result of careful, complete preparation.

Some of the steps outlined for doing well in a case are: begin documentation of the situation as soon as you become aware of possible litigation, visit the scene, and take notice of everthing, even minor things. Don't visit just once, repeat the visit whenever you feel it is necessary. Go over everything with your attorney, pointing out both strong and weak points. Prepare, prepare, prepare and, just in case, it doesn't hurt to have some personal liability insurance either through your employer or buy it yourself.

Leading the discussion on the Indiana Through on Red at "T" Intersections legislation, Bill Savage, Supervising Engineer of MDOT's Electronic Systems Unit, gave some background of ITE's negative stance on allowing this movement. Among the factors to consider by allowing this are the number of active pedestrian crossings, reaction by out of state drivers, possible undermining of respect for a red at a traffic signal, and the definition of a "T" intersection. ITE wrote Indiana's governor requesting him to consider repeal due to possible problems. ITE is not totally against giving the through on red a try, but it should be done with extreme caution.

Last on the agenda for the March Technical Session was Jim Fergus of MDOT's Construction Division. Jim took us through the cause and result of the Zilwaukee Bridge segment tipping. Overloading was a major cause for the existing conditions. Efforts to salvage the segment and pier are going on. Additionally, Jim presented an excellent slide show describing the work involved with pre-casting the 150 ton segments used and the installation process using the launching girder.

By Tom Weiss

GET THE LEAD OUT

Motorists filling up at self-serve pumps are twice as likely, as those served by service station attendants, to use leaded gasoline in a car built to use only unleaded fuel, oil industry analyst Dan Lundberg says.

In his weekly newsletter, Lundberg said the number of motorists destroying their anti-smog devices by using leaded fuel has reached epidemic proportions.

Lundberg said he calculated the "misfueling" rate by comparing results from studies made by the Department of Energy and the federal Environmental Protection Agency. He said he found the misfueling rate at 10.6 percent for full-service stations and 20.2 percent at self-serve.

Self-service stations sell 72 percent of the nation's gasoline.

The EPA study found that use of leaded fuel had damaged the smog systems of 16.7 percent of cars designed to use only unleaded gasoline.

"The high rate of fuel switching is surprising because evidence is overwhelming that the use of unleaded gasoline is beneficial to the engine," Lundberg said. "Vehicles designed for unleaded fuel require appreciably less maintenance than older vehicles designed for leaded fuel, less frequent tuneups and oil changes, less exhaust-system corrosion, and so on."

Unleaded fuel costs on the average about 6 1/2 cents more per gallon than leaded, Lundberg said.

Under the federal Clean Air Act, service station dealers or attendants can be fined up to $10,000 if fuel switching takes place at their stations, whether they see the action or not. Motorists are not liable for fines.

MANDATORY SAFETY BELTS

RICHARD H. AUSTIN, SECRETARY OF STATE

Following are the comments made during Secretary of State Richard H. Austin's presentation at the March Session.

Good vehicles, drivers, and roads combined make for safe driving. New money made available by the fuel tax passage will allow us to key on the road element. However our biggest challenge is the traffic accident--the greatest threat to human life. A missing link and possibly the greatest traffic safety measure is a used occupant restraint system. The existing occupant restraint systems are not efficient because of the human element and their refusal to use them. Mandatory usage of the system has been called an infringement on individual rights, a political issue, or simply a government intrusion. Whatever one prefers to call the mandatory requirement it could still make a big difference in an accident producing or accident avoidance situation.

Pressure is being put on the legislature through various safety groups for the passage of mandatory occupant restraint laws. Because of media coverage of such pressure, several other states are now considering similar legislation. Representative Holister has reintroduced HB 4203 which requires mandatory safety belt usage for front seat passengers. This is a high payoff piece of legislation in that it costs nothing but the results would have a tremendous payoff through reduced fatalities and injuries.

The Michigan section of I.T.E. could play a vital part in assuring passage of mandatory seat belt legislation by assisting in a letter writing campaign urging support of House Bill 4203. This could be done on an individual basis with 3-5 friends asked to do the same. Such legislation currently has the support of numerous newspapers but the negative comments in "Letters to the Editors" columns of some newspapers must be counteracted.

The Michigan Coalition for Safety Belt use, during the 1982 Legislative session, was instrumental in getting such legislation introduced. Their speaker bureau provides speakers to various safety groups desiring to get more specific data concerning the benefits of seat belt usage.

The State of Michigan has long been a leader of traffic safety through special programs. Such programs were instrumental in the passage of infant restraint and drunk driving legislation. Since passive restraint systems are only available in a few vehicles, the expertise available within the I.T.E. membership may be able to provide the assurance that the Michigan Seat Belt law (HB 4203) passes.

By Al Dewey

WIDER EDGELINES AN EFFECTIVE ALCOHOL COUNTERMEASURE

A recent field study in northern New Jersey was conducted to determine whether wider-than-standard edgelines would serve as an alcohol countermeasure. Four edgeline width conditions (0, 4, 6, and 8 inch) were evaluated using 16 male test subjects. The subjects each drove the test sections twice -- once after they consumed placebo drinks (0.00 blood alcohol) and the other time after they consumed either placebo drinks or a controlled alcohol dosage (0.05 or 0.08 BAC).

The presence of wider than standard edgelines was found to incrementally enhance the benefits drived from standard four-inch wide edgelines for both unimpaired and alcohol impaired drivers. The improved driving performance of the test subjects in the presence of wide edgelines indicates that strengthening the visual signal at the road edge may compensate to some degree for alcohol impairment and hence reduce the risk of accidents.

The study is reported in Transportation Research Record #847 which can be obtained from TRB, 2101 Constitution Avenue, N. W., Washington, D.C. 20418.
Reprinted from ATSA "Signal"

NIGHT-TIME FLASHING OPERATION FOR TRAFFIC SIGNALS

In preparing the 1981-82 operating budget for the City of Lincoln, Traffic Engineering Division, consideration was given to placing selected traffic signals on yellow/red flash during hours of low volume as a means of saving on electricity consumption. Based on the Federal Highway Administration's publication A Study of Clearance Intervals, Flashing Operation, and Left-Turn Phasing at Traffic Signals, May 1980, two criteria were used to select intersections and times for flashing operation.

1. Main street to side street volume ratio must be 3.0 or greater.
2. Main street volume must be less than 200 vph in the first hour of flashing operation.

On July 13, 1981, ten intersections in the Central Business District were placed on flashing operation between 0000 and 0600. A universal time period of 0000 to 0600 was chosen so that the flashing operation could be activated by a pulse using the signal interconnect system. Three of the intersections were metered to monitor electricity usage.

Based on the literature, six hours of flashing operation per day will save an average of 1,820 kwh/year at each pretimed intersection. Among the three metered locations the electricity savings ranged from 2,444 kilowatt hours per year to 954 kilowatt hours per year. The intersections varied as to the number of traffic signal and pedestrian heads and the lamp wattage. During the period from July 13, 1981 to December 31, 1981, there were three accidents during the hours of flashing operation. All three were at the same intersection.

Due to the favorable experience with the initial ten intersections, the flashing operation was expanded to 26 total intersections in December 1981. Two of the added intersections were metered. Based on the literature a total of 52,540 kwh of electricity could be saved on the system each year. Based on the five metered locations, a total of 61,140 kwh/yr savings was estimated.

Additional savings from flashing operation would accrue to drivers due to reduced fuel consumption due to reduced stops and delays. The literature shows that for a 3 to 1 main street to side street volume ratio the flashing yellow/red operation reduces delay 2.3 sec./intersection vehicle over the standard operation. Using data from the computer traffic control system detectors, actual intersection entering volumes between 0000 and 0600 were determined where possible. Where adequate detectors were not available, the 0000 to 0600 entering volume was computed as a percentage of the PM peak hour entering volume. The average daily volume entering an intersection between midnight and 0600 is 39.4% of the PM peak hour entering volume. For the 26 intersection using flashing operation, a total of 2,525 gallons of fuel per year would be saved. The same proportion of entering vehicles has to stop under regular operation as under flashing operation, thus there is no fuel savings due to reduced stops.

In terms of dollars, the electricity savings amount to $1,907 annually. Using a fuel price of $1.20 per gallon, the annual fuel savings would amount to $3,030. On the negative side, the cost of a property damage accident is $850 and an injury accident of $6,000. Any accidents attributable to the flashing operation can quickly offset any savings. No effort was made to place a value on the driver's time in calculating the delay savings.

The use of flashing operation has had a favorable response from the public and law enforcement agencies. After a full year with 26 intersections using flash another evaluation will be done. If the situation is favorable, another seven intersections will be added.
By Taylor N. Withrow
Reprint from MOVITE JOURNAL

SEMINARS FOCUSES ON STATE'S DRUNK DRIVING LEGISLATION

The Downriver-Western Wayne Traffic Officials Association is taking Michigan's new drunk driving laws seriously--and hopes all drivers will do the same.

In recognition of the new legislation which took effect April 1, the group held a drunk driving seminar and alcohol demonstration.

The March 16 event in Allen Park included a lunch, slide and talk presentations on alcohol-related issues and enforcement, and a driving demonstration showing the effects of drinking.

Officers from 37 communities took part in the event and later took part in a saturation patrol looking for drunk drivers.

The attendees included over 100 Wayne County district court judges, police officers and elected officials.

"Drunk drivers have become a national problem," says Plymouth Officer Robert Henry, event coordinator, "even President Reagan calls it a major problem -- he listed it as his third priority for 1983".

Apparently the Michigan legislature realizes the importance of the problem. It passed the new drunk driving laws which provide several stiffer penalties for drunk driving, while making enforcement easier. The changes include:

* Establishing a "per se" law which makes it illegal for anyone with a blood alcohol content (BAC) of 0.10 percent or greater to operate a motor vehicle.

* Allows for the use of preliminary roadside breath testing equipment (PBTs) by law enforcement officers.

* Increases license suspension penalties for operating under the influence of alcohol (OUIL) convictions and creates such penalties for operating while impared (OWI) convictions.

* Allows for offenders with a previous OUIL conviction to be subject to second or subsequent offense penalties when charges with OWI.

During the seminar, six subjects were instructed to drink until they reached approximately 0.10% BAC. Using driver education cars, they then tried to negotiate an obstacle couse while drunk.

"The Wayne County Sheriff's Department set up the course based on information from the Oakland County Sheriff's Department (which ahs an alcohol task force)," Henry stated.

Persons attending the seminar viewed video tapes showing how the six subjects drove the course before drinking. They then will watch as the subjects try to drive the course after drinking.

"You'd really be surprised at the difference it makes," says Henry.

On April 1, the gorup initiated a selective enforcement program looking for drunk drivers along those roads where there has been a high incidence of alcohol-related fatal accidents.

CALIFORNIA TESTS BREAKAWAY WOOD SIGN SUPPORTS

Since the late 1960's CALTRANS has used 6" x 8" or smaller wood posts and timber poles that have drilled holes near the bases as breakaway supports for dual-support roadway signs. Due to the recent rapid increase in the lightweight car population, they recently conducted crash tests with 2,205 pound cars on these designs to determine whether they met performance criteria.

When impacted by the lighter vehicles at 19.8 and 57.7 mph, the 6" x 8" wood posts met all the criteria but a 9.25" diameter timber pole did not break away. Consequently, timber pole supports are no longer used on new construction in California.

A 7.875" x 14.875" laminated wood veneer box-section post that has saw cuts in the webs did meet all the test criteria and the design was adopted as a standard in California.

A full report of this study is in Transportation Research Record #868 and may be obtained from the Transportation Research Board, National Academy of Sciences, 2101 Constitution Avenue, N. W., Washington, D. C. 20418.

Reprinted from ATSA "Signal"

ENGINEERS AND COMMUNICATION

How does an engineer use communication to achieve acceptance of a proposed project? Engineers and Communication was the keynote address at the March Technical Session held in Lansing at the Midway Motor Lodge. Mr. Robert C. Allison, Manager of Training and Education for the 3M Company gave the attendees an effective insight to this question.

Mr. Allison started out noting that what we really want to do is persuade someone to follow an anticipated action. Therein lies the difference in Communication and Persuasion. The first is back and forth conversation while persuasion is communication with a resultant, wanted action. To realize just what is necessary in communicating for persuasion, we must put ourselves in the position of those who make the final decision. By doing this we can perceive that the decision maker has wants relating to the solution of problems. Once we do this, our project can sell itself by matching its features to the solution, its advantages to the problem requiring a solution, and the project's benefits to the wants of the decision maker.

Of course we can't just walk in and blatantly expect a decision in our favor. Before we can persuade management, we must persuade ourselves that we have a good project. One way of doing this is called the Feature, Advantage, Benefit (F.A.B.) analysis. By listing all the features of the project, the advantages of each feature, and the benefit each advantage produces, we persuade both ourselves and management. There are a number of ways of doing this.

One is by using evidence that your solution has worked before. Stating the who, what, when, where, and why it has worked can support your project. Another is by demonstration. Where you can prove the results by demonstration, it goes a long way toward persuasion. If you can get management to arrive at the same result through trying the demonstration, you've made your point. The third method is by using exhibits. Statistics, charts, photos, or graphics of the project can all be useful to make your point.

Remember that there is such a thing as self-fulfilling prophecy. If you believe in the project, you'll probably succeed. If you don't persuade yourself, you'll fail.

Lastly, remember that management wants to look good. If you persuade yourself, put on their shoes and target your features and advantages to management's benefit. They'll look good and you'll get your wanted action.

By Tom Weiss

SAFETY LIGHTS BURN LONGER

A major renter and manufacturer of flashing safety lights is finding that costs have dropped and reliability increased with a new dry battery. The battery lasts about three times as long as normal and performs better in cold temperatures.

Warning Lites of Illinois, Inc., normally has about 35,000 barriers with flashing warning lights in use at any one time. Always searching for ways to cut costs, Val Van De Velde, president of the company, ordered 35,000 6-volt alkaline batteries from the Fremont Battery Company. A prolonged test demonstrated that the batteries do have about three times the life of normal batteries and that battery output is maintained in temperatures far lower than with standard batteries.

Normal carbon-zinc batteries start to lose power at 60 deg. F. and achieve only about 10 percent of capacity at 10 deg. The alkaline battery operates at 100 percent of capacity down to 10 deg., with major savings in cold weather service and an increase in safety.

The batteries cost about two and a half times the cost of competitive makes but the real savings come from the longer lifetime allowing longer periods between battery changes with consequent savings in labor. Cast out of aluminum with a virtually thief-proof lock and a light cell that turns lights on and off, the batteries are protected against theft and vandalism.

Reprinted from Highway and Heavy Construction

ACCIDENT EXPERIENCE AT LOW VOLUME RURAL INTERSECTIONS IN MICHIGAN

The following is a synopsis of an article which appeared in the December 1982 issue of Public Roads magazine. The article was based on an analysis of data collected at randomly selected rural intersections in Michigan for an ongoing FHWA study entitled "Geometric Treatments For Reducing Passing Accidents at Rural Intersections on Two-Lane Highways."

The purpose of the study was to examine the relationship between accidents and the type of control at low volume rural intersections. Intersections with no control and intersections with STOP control only on the minor approaches were included in the analysis. Accident experience was examined at the study sites based on sight distances, volume, and the number of approach legs.

The major findings of the study are summarized below.

- In the sample of nearly 900 rural intersections, 96 percent were STOP controlled.
- The data indicated a proportional distribution of uncontrolled and STOP controlled intersections between sites where the sight distance was restricted and where sight distance was unrestricted. Thus, the general supposition that STOP signs are used to control traffic at intersections with poor sight distance is not supported by the data.
- No significant difference in accident frequency was found for STOP controlled and uncontrolled intersections where the major road volume was less than 1,000 vpd and the minor road volume was less than 500 vpd.
- When the major roadway volume is less than 1,000 vpd, there is no relationship between the number of approaches, i.e., 3-leg and 4-leg intersections, and accident frequency.
- Accident experience at STOP controlled intersections is neither better nor worse than at uncontrolled intersections under 1,000 vpd.

This research does not provide conclusive data to suggest that STOP signs should be removed at low volume rural intersections; however, the data indicate that STOP signs alone do not guarantee fewer intersection accidents. While the decision to use STOP signs should be based upon sound engineering practices as presented in the MUTCD, other alternatives, such as YIELD control or no control should be considered instead of the extensive use of STOP signs at rural intersections.

The findings of the Michigan study support the conclusions of a recent FHWA study conducted by the Texas Transportation Institute in Texas, New York, and Florida.

By M.R. Parker, Jr.

CLAIM'S CLERK WINS AAA SAFETY BELT DRAWING

"When I have a safety belt on, it feels like people have their arms around me," says Laura Fenlon, senior Claim clerk of the Pontiac AAA Branch. Fenlon is the grand-prize winner of the London, England trip awarded at the May 2 safety belt drawing at Home Office.

Auto Club President Jack Avignone drew the winning name from among names of employees observed wearing safety belts to and from work. This drawing ends a year-long safety belt program for AAA employees conducted by the Safety & Traffic Engineering Department. During the year, all employees saw a 1-hour safety belt program and their usage was monitored.

"When I have a safety belt on, it feels like people have their arms around me."

Fenlon has worn her safety belt ever since driver's training. She can't start the car without one.

Fenlon learned about the effectiveness of safety belts the hard way. When another driver ran her car into a curb, Fenlon's car became airborne. She remained in the car because the shoulder harness automatically tightened. She escaped with only minor cuts and scrapes.

Reprint from Wheels

DRIVER WITH GREEN LIGHT NEEDN'T CHECK

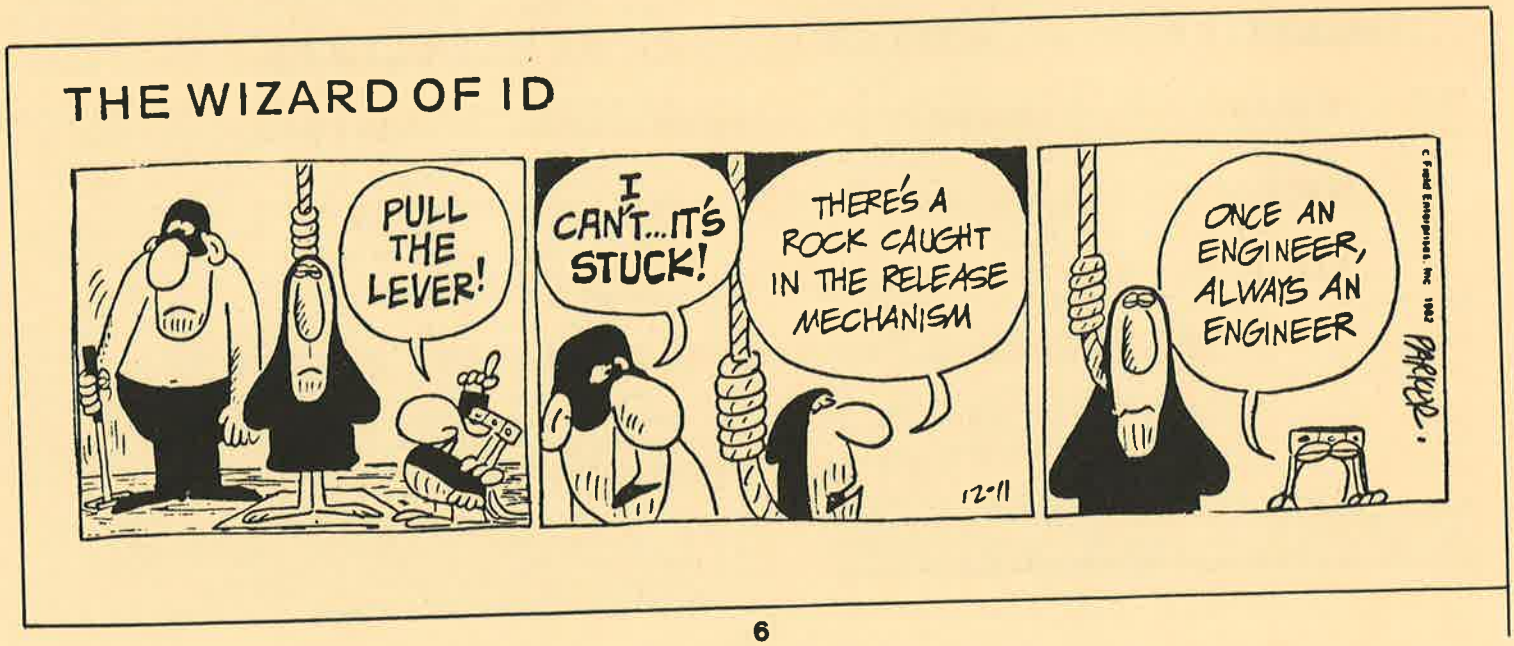
A motorist driving through an intersection on a green light is not bound to watch for cross-traffic that may run a red light, the state Court of Appeals ruled.

The ruling involved a 1979 collision at in intersection in Battle Creek. Ruby Porter filed suit after her car was struck by Angela Bobinac.

Porter claimed that Bobinac was negligent in relying on the signal and entering the intersection without making sure traffic from the intersecting highway had stopped.

Porter said she entered the intersection on a yellow light, but Bobinac claimed the light was red for the woman.

In either event, as Porter crossed the intersection, the light turned green for Bobinac and she proceeded into the intersection and struck Porter's car, according to the court record.



FEBRUARY TECHNICAL SESSION

Some forty plus Michigan Section members were at the Holiday Inn - Westbank in Ann Arbor for the February 24, 1983, Technical Session, hosted by Karl Kleitsch and Ken Feldt. Vice President Tom Krycinski started things up by welcoming all, then turned the session over to Technical Chairman Mike Labadie of OCRC.

Mike introduced Bonnie Poindexter who would speak on "Income Taxes and the Traffic Engineer." Ms. Poindexter holds a Masters degree in accounting, teaches at Kalamazoo Community College, and has opened an office in Vicksburg. Bonnie's 15 years of tax return experience has repeatedly pointed out that developing strategies to avoid paying taxes takes time, planning, and documentation. While tax evasion is, of course, illegal; tax avoidance is legal and can save money for anyone.

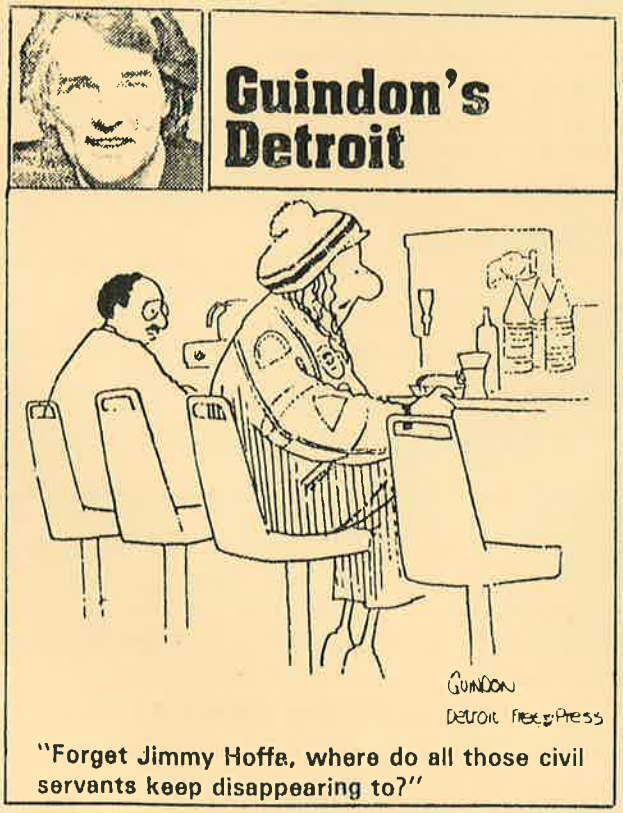
Three major terms related to taxable income were pointed out: Adjustments, Deductions and Credits. While deductions certainly help reduce taxes if they are over certain dollar limits, adjustments and credits are more valuable in that the first reduces total income and the second reduces your tax dollar for dollar. Bonnie also pointed out that certain items can be placed in the business expense category for investment credits such as personal vehicles used for business purposes, uniforms not considered usable as daily street wear such as law enforcement, mailman, and nurse's uniforms. Such credits are claimed by using Forms 2106 and 3468. Out of country travel (Publication 463) can also reduce your tax. Certain rules apply, but anyone planning on attending ITE in London, England this summer should get and read this publication.

Lastly, Bonnie strongly suggested that you figure all your options. If in doubt about any deduction, adjustment, or credit, contact your tax preparer or file your return and let the IRS tell you it is not allowed.

Next on the agenda was Tom Weiss, Michigan Section's new Public Relations Chairman, who took us up to the lunch hour by noting a number of inventory type devices such as profilometers, laser cross section units and Photolog. As a traffic technician with Michigan Department of Transportation, and supervisor of the Photolog, Tom showed the difference in photolog quality that can be had by simply changing to a new, higher ASA film. Also displayed were grids developed to aid in obtaining longitudinal and lateral distances from the photolog.

After lunch, Bill Lebel, MDOT engineer and past-president of the Michigan Section updated us on the Michigan Section's Technical Project for ITE, "Child Safety on Michigan's Highways." The project, initiated around 1979, started with information booths, concern over legislative activities and a desire to meld these concerns with other safety organizations. Using the Michiganite as a catalyst, the project continued with letter campaigns, press releases and more information booths around the state. Thanks to a high involvement by the Office of Highway Safety Planning and association with the many groups that form the Coalition of Child Passenger Safety, the child restraint bill passed in June, 1981 and was effective April, 1982. Reduction in the fatalities of the 0-4 age group was almost 50 per cent based on available information. Final copies of the report have been distributed to some 15 associations and hopefully additional copies will be available in the near future.

Bob Grady, Senior Traffic Technician with the Oakland County Road Commission, brought the session to a close with "Traffic Control in Subdivisions - The Counties' Viewpoint." Bob pointed out that, as subdivisions change from new open-space type to developed tree-lined areas, there is a need for upgrading and reassessing traffic control. In Oakland County, it was decided to post the prima facie 25 miles an hour speed limit at major entrances to subdivisions. Otherwise, enforcement of the speed limit would be non-uniform. Other problems encountered in subdivision traffic control are possible hazards posed by homeowners doing creative landscaping such as using boulders to protect their grounds from vehicles straying from the traveled way, tight curves built to maintain the aesthetics of the original landscape, and shrubbery attaining full maturity thereby blocking sight distance. These problems make proper traffic control on local streets quite an accomplishment. By Tom Weiss.



"Forget Jimmy Hoffa, where do all those civil servants keep disappearing to?"

DO DRIVERS UNDERSTAND FLAGGER SIGNALS?

The results of a human-factors laboratory study conducted in Texas to evaluate driver understanding of 13 work-zone flagger signals has been reported. This was an exploratory study in which 123 motorists participated and 23-73 motorists viewed each signal. The signals evaluated included seven standard signals recommended in the MUTCD, two signals recommended in the 1973 Texas MUTCD, two signals recommended for use by police, and two non-standard signals. A stop or slow sign paddle, a red flag and/or hand motions were used to perform the various signals.

The results indicate that (a) most drivers understood all seven of the MUTCD signals except signal two (stop traffic) and signal nine (alert traffic), (both signals required the use of a flag alone), (b) exclusion of the two signals in the 1973 Texas MUTCD from the current manual was in the best interest of work zone safety, (c) the two police signals were understood by most drivers but are not recommended for use at this time, and (d) the two non-standard signals showed no advantage.

The study indicated that most of the signals that involved the use of the stop-slow sign paddle and/or hand motion were understood by the drivers but the signals in which a flag alone was used were less effective.

This study is reported in Transportation Research Record #864 available from TRB, 2101 Constitution Avenue, N. W., Washington, D. C. 20418.
Reprinted From ATSA "Signal"

May 20, 1983

Dean Hobson
CH2M Hill
P.O. Box 428
Corvallis, OR
97339

William J. Fehribach, P.E.
ITE, District III Director
A & F Engineering Company, Inc.
5160 East 65th Street
Indianapolis, IN 46220

Dear Mr. Fehribach:

The Michigan Section entry in the Section Technical Award competition has been unanimously selected as the winning paper.

Three entries were received for the competition this year. All three were excellent papers, making the selection of a winner very difficult.

Jim Kell, Chairman of Technical Council, has already contacted Richard Beaubien, President of the Michigan Section, about the presentation of the award at the annual meeting in London.

Sincerely,

Dean Hobson

Dean Hobson

I.T.E. and A.S.C.E. members board a prototype of the Detroit People Mover vehicle at the Urban Transportation Development Corporation test track in Kingston, Ontario. I.T.E. members Dennis Grylicki, Frank Meyers, and Richard Beaubien were among those on the joint A.S.C.E.-I.T.E. tour to Toronto and Kingston. April 21-24, 1983

EVEN HIS LAW QUOTED WRONG, SAYS 'REAL' MURPHY

Remember Murphy's Law? The one that popularly proclaims that "if something can go wrong, it will?"

Well, an intrepid reporter at "Science 83" magazine has made a discovery. Murphy lives. What's more, he's an engineer. And he didn't say "If something can go wrong, it will."

It all began back in 1949, when Air Force Captain Edward A. Murphy, Jr., developed a harness with 16 sensors to measure how much acceleration the human body could withstand.

When the device was tested, it didn't work. The sensors had all been glued on the wrong way. Called to the scene to investigate, Murphy proclaimed: "If there are two or more ways to do something, and one of those ways can result in a catastrophe, then someone will do it."

Murphy's statement was picked up in a press conference on the failed harness test, and was subsequently quoted in print--in sources ranging from aerospace advertising to official bulletins of the Flight Safety Foundation. The rest is history--and hype.

Murphy, who now works as a reliability engineer for Hughes Helicopters, Inc., doesn't like the current translations of his law, which accept accidents as inevitable.

He told "Science 83" he intended his statement as a warning to machine designers and engineers to design equipment with safety in mind--equipment that is difficult, if not impossible, to operate the wrong way.

Reprint from Engineering Times

1983 MEETING SCHEDULE

Date	Location	Host	Event
July 29-30	Mt. Pleasant	Tim DeWitt	Tech./Family Weekend
August 14-18	London, England	National	Annual Meeting
September 8	Lowell (Saskatoon)	Jere Meredith	Golf Outing
September 29-30	Dearborn	Joe Marson	District III Meeting
December 1	Engineering Society of Detroit	Cool/Richardson	Annual Meeting/ Tech. Session

VENDORS' DAY
6th ANNUAL PRODUCT TECHNICAL SESSION

The best-ever Product Technical Session was held in the Southfield DPS Garage on May 19. Nineteen vendors displayed their wares and over 150 engineers, purchasing agents, technicians and police officers roamed among the exhibits.

The new format of opening in the morning from 10 a.m. to noon attracted many people that otherwise would not have been able to attend. The afternoon session (2 p.m. to 5 p.m.) was also well attended. This was the results of sending out almost 1,100 invitations.

Special thanks again to to our Southfield hosts, particularly Bob Northrup, Marv Misiak and Eleanor May. These people once again outdid themselves in helping to make the day a success.

The day ended with dinner at Merrick's Restaurant and a program entitled "Super-City: Detroit". Eleanor May, who has so cheerfully handled the registration desk again, was presented a plaque for her assistance.

We hope to see you again next May, especially the many great companies that make this show possible.

By Bill Savage, Program Chairman

Holmes Associates was represented by Ken Frensley and Richard Akins. They featured Hydrozo coatings and sealants.

Paul Carrier and Mack Corbin and the Redland Prismo crack-patching equipment.

The Registration Table was again handled most ably by Eleanor May of Southfield.

Merv Teague displaying some of the reflective products of 3M Traffic Control Materials.

Bill Ryzyi, Levarne Vauters and Keith Meyers of Thermo Power Corporation demonstrated their Bituminous Patch Master Equipment.

Cont. on page 10

Jim Walker, Sr. of Walker Hydraulic Tool Co. demonstrates some of their equipment.

Tim DeWitt of 3M Marking Materials discusses long-lasting reflective pavement markings.

Unistrut's Bob Richardson, Herb Henry and Ray LeDuc showed their all-purpose Unistrut posts and fasteners.

John Gillett and Jeff Mullins of Cycle-Safe and the Phil Johnson Sales Company showed bicycle storage containers and concrete sealants.

Scotty Robertson, Cindy Lawler and Tim Miller of Digger & Aerial presented their aerial equipment.

John Dooley, Rick Rajda and Keith Hay joined Jack Wiitala of Traffic & Safety Control Systems to show a variety of traffic and parking equipment.

Richard Forestal of Hi-Vu shows his battery-operated illuminated target arrows.

3M Security Systems' Dave Hawkings showed time-base coordinator units, detectors and reflectorized worker vests.

The Windmaster portable sign support is demonstrated by Jerry McCabe of Marketing Displays.

Don Beard and Cliff Connelly of Pathmaster show a diversification of electronic traffic equipment.

Bill Murphy and Dave Bacon of Carrier & Gable, and Doug McNaulty of 3M discuss some of C & G's large array of traffic-related products.

Mine Safety Appliances' Mike Gingo showed many of his safety products.

Lyn Svensen of Winko-Matic and their 3-line portable, changeable message sign.

I.D.C. Corporation's Lewis Alspaugh, Ken Black, Pete Walacavage and Jim Black showed you anything you might want in solid-state electronics.

Vince Adamo presented fiberglass poles from Shakespeare.

A special THANKS goes to Bill Savage and the City of Southfield for a very successful day.

signed: 19 Vendors

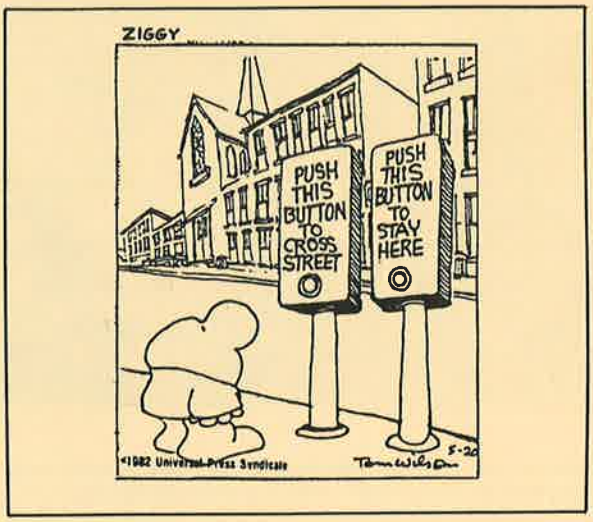
FAMILY-TECH MEETING

Mark your calendars for July 29 & 30. This Friday and Saturday you'll find fellowship and friends sunning, swimming, and swinging (golf clubs, that is) at the Mt. Pleasant Holiday Inn for the 3rd Annual Family-Technical Weekend.

This year's meeting will be bigger than ever. It will begin with a short technical meeting on Friday afternoon, then fun, sun and relaxation by the pools. There will be a Board Meeting on Saturday for the Board Members and anyone else who wants to know what the Board is doing or wants to be heard on a topic. The rest of the weekend is free. A hospitality room will be open on Friday and Saturday nights.

Most families reserve a room for both nights and wish they could stay longer. Those of you who attended last year know what a great time we had. This year we've reserved more rooms as we anticipate an excellent response. You will be receiving a meeting notice with more details shortly.

By Tim DeWitt



Candidate Traffic Signal Warrant from GAP Availability Data

Signals are needed to control traffic at intersections where adequate gaps are not available for entry of side street traffic. A gap counter, developed and tested for FHWA, records gap distribution on the major street. Commercial gap counters are now available.

A candidate traffic signal warrant has been developed based on determining the gap availability parameter (GAP) for major street traffic and measuring the side street volume. The GAP is computed by multiplying the number of gaps in each gap size classification by a weighting factor to determine the number of side street vehicles that can enter the intersection for the period.

Gap Size Classification (Seconds)	Weighting Factor for Entering Vehicles
0 - 5	0
5 - 9	1
9 - 13	2
13 - 16	3
16 - 19	4
19 - 22	5
22	6

Figure 1 can be used to estimate the average side street delay per vehicle. If greater than some set threshold, such as 30 seconds for 4 hours of the day, a signal is warranted. If the total side street delay is over 4 vehicle hours for the peak hour, a signal is warranted based on the peak hour warrant. Figure 2 is an example of the peak hour warrant chart.

Gap counter installation requires a road tube detector for each traffic direction. Figure 3 shows examples of gap counter installations.

Research report FHWA/RD-82-152 includes a user's guide. A task force of the Signals Technical Committee of the National Committee on Uniform Traffic Control Devices is reviewing the research report. The task force recommendations will be used to develop an experimental program to further evaluate the candidate warrants. The developed experimental program will be monitored by the Office of Traffic Operations.

For further information contact Morrie Hoevel of the Lansing office of FHWA at (517) 377-1842.

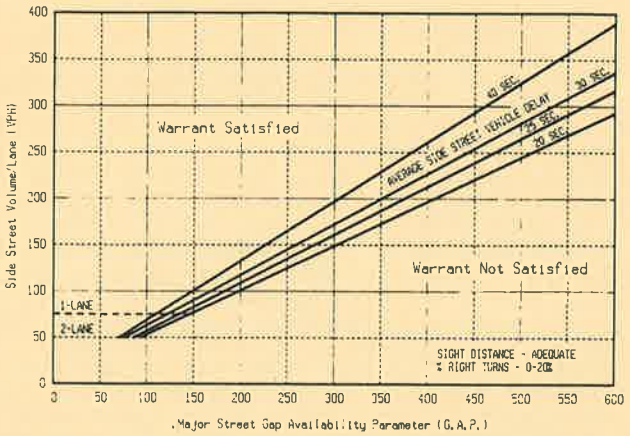


Figure 1. Example of Vehicle Delay Warrant Chart

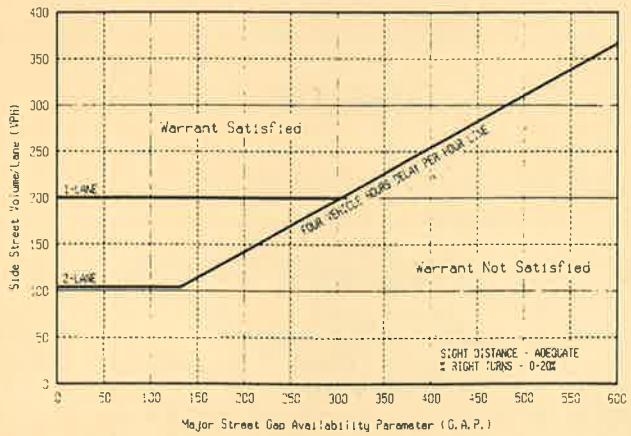


Figure 2. Example of Vehicle Delay Warrant Chart

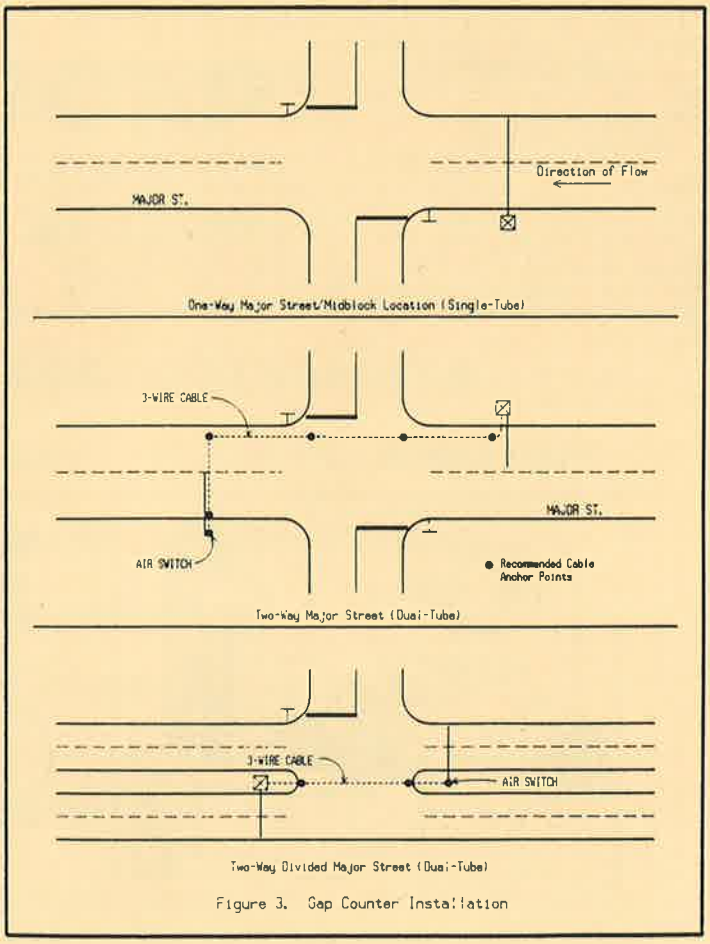


Figure 3. Gap Counter Installation

Changes to MUTCD Adopted

On February 9, 1983 the U.S. Federal Highway Administration incorporated 19 changes to the U.S. Manual on Uniform Traffic Control Devices (MUTCD). The following summarizes the changes.

WARNING SIGNS. The MUTCD now provides more specific guidance on the placement of warning signs based upon the prevailing speed and conditions at the warning sign location.

CHANNEL 9 MONITORED SIGN. This change standardizes the sign used to inform motorists that a CB emergency channel is monitored by responsible agencies.

ADVANCE STREET NAME SIGNS. These signs may now be installed below the STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD, and other signs on intersection approaches.

PRIORITIZED LISTING OF BASIC SIGN GROUPS. This amendment revises Section 24-A of the MUTCD to provide guidance for establishing the priority of sign placement where the number of signs to be installed is limited.

WINDING ROAD SIGN. The WINDING ROAD sign may now be used to warn of a series of three or more curves in lieu of installing a series of Reverse Curve or Reverse Turn signs. This change will reduce the number of signs used on winding sections of road.

ADVANCE REST AREA SIGNS. Signs with the word message NEXT REST AREA XX MILES may now be installed.

MANDATORY MARKING OF INTERCHANGE RAMPS. The MUTCD will require the use of channelizing lines and extension of the dashed lines for parallel deceleration lanes at exit ramps.

OBJECT MARKERS. The MUTCD previously permitted use of both white and black, and yellow and black object markers. This change will permit the use of only yellow and black object markers.

PERMISSIVE USE OF WRONG-WAY PAVEMENT MARKING ARROWS. Use of pavement marking arrows near exit ramp terminals was previously required to deter wrong-way entry onto freeways. At some locations, they have had the unintended effect of telling the exiting motorist that the only permitted maneuver is straight ahead. This change will make the use of wrong-way pavement marking arrows permissive rather than mandatory.

PEDESTRIAN WALK COLOR. The color used for the pedestrian signal WALK indication has been slightly changed. This change does not require any modification of existing signal installations.

REQUIRED LOCATION OF TRAFFIC SIGNALS. The Manual previously required the use of a near-side signal head when the nearest signal face would otherwise be more than 120 feet from the stop line. The near-side signal is no longer required if 12-inch signal lenses are used when the signal heads are between 120 and 150 feet from the stop line.

REFLECTORIZATION OF SIGNS. Inferior methods of providing sign reflectorization are now prohibited. Reflectorized material (other than reflector buttons) must have a smooth sealed outer surface.

COLOR OF REFLECTORIZED MATERIAL FOR CONES. The MUTCD previously required cones and tubular markers to be reflectorized when used at night but failed to specify the color of the reflectorized material. The material now must be white.

ADVANCE WARNING FLASHING ARROW PANELS. This amendment provides better definitions of both the proper and improper use of arrow panels and establishes criteria for use of the different modes of displaying arrows and chevrons.

USE OF STREET NAME SIGNS WITH DETOUR SIGNS. This change allows the highway agency to use street name signs with detour signs to identify by name the street for which the detour was established.

USE OF DETOUR ENDS SIGNS. A DETOUR ENDS sign may now be used to inform the motorist that they have returned to the original route.

WARNING SIGNS ON ROADS PARALLEL TO RAILROADS. A new standard sign has been developed to warn motorists on roads parallel to railroads that a specified turn from the parallel road will place the motorist on the approach to a railroad-highway grade crossing.

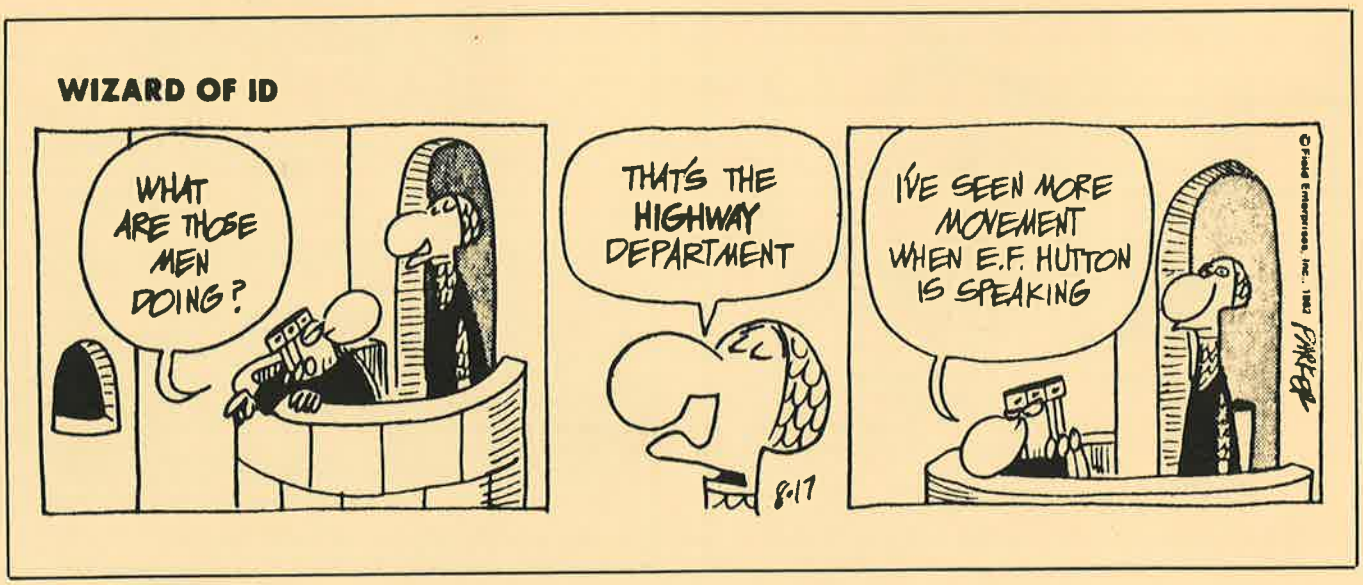
USE OF STOP SIGNS AT RAILROAD GRADE CROSSINGS. Additional guidelines are now provided in the Manual for determining this need for STOP signs at railroad crossings.

BIKE PARKING SIGN. A standard sign to designate bicycle parking areas is now included in the Manual.

In considering the above changes to the MUTCD the Federal Highway Administration received recommendations from the National Committee of Uniform Traffic Control Devices. The National Committee is an independent group which assists in the development of standards, guides, and warrants for traffic control devices used to regulate, warn and guide traffic on streets and highways. The organization consists of about 150 individuals from throughout the United States who have extensive experience in the installation and maintenance of traffic control devices. Many of them are ITE members, and the Institute is a sponsoring organization of the National Committee.

For additional information on the National Committee contact Jonathan Upchurch in care of the Department of Civil Engineering, Arizona State University, Tempe, Arizona 85287.

By Jonathan Upchurch



"CENTIPEDE" CAN SAVE LIVES

It's an experimental mobile crash barrier called "the Centipede." It's designed to protect Texas road repair crews, and it seems to work well.

The unconventional barrier, consisting of five old station wagons, guardrails and wood, was designed by researchers of the Texas Transportation Institute (TTI) to stop vehicles from hitting maintenance crew members performing repair work on busy freeways and streets. Last year, 12 workers were killed in Houston alone.

In crash tests, a car moving more than 50 mph was rammed into the barrier at a 15-degree angle. The barrier redirected the car back toward the open driving lanes while the barrier was moved only about eight inches.

The unusual barrier has several advantages. It can be set up quickly and moved along the road as crews patch potholes and perform other amintenance.

At first glance, the barrier - designed by TTI researchers Don Ivey, Hayes Ross and Ted Hirsch - looks like five cars connected together, which is exactly what it is. Only the first car needs to run, and, like a railroad locomotive, it pulls the others along. Guard-railing is attached to the sides of the vehicles with heavy wood beams and mteal bolts.

The per-unit cost is estimated at about $7,000, including the cars. The alternative is either standard marking cones, which offer virtually no protection, or concrete barriers, which are expensive and time-consuming to position.

"The beauty of this barrier is that one person can drive it and it can be moves right along with the work," Ross said. "In Houston, for instance, a crew might move several thousand feet in a day.

"This is not the ultimate answer by any means. But this is something we think could be used right now. It would reduce the impact of most hits."

INSTITUTE RESPONDS TO THROUGH-ON-RED LEGISLATION

TASK FORCE

Experts in traffic operations and safety were called together at ITE Headquarters on January 14, 1983 to consider and discuss the new Indiana "Through On Red" law and its potential ramifications. This Task Force included representatives from Federal, State, Municipal, and other agencies from across the United States. Participant's expertise included transportation operations, traffic safety, human factors, and national uniformity of traffic laws and ordinances. The Task Force reviewed the impacts of "Through On Red" (TOR) and provided a summary of findings which were submitted to the ITE Technical Council and the International Board of Direction. Immediately following endorsement of the Task Force report a request was sent to the Honorable Robert D. Orr, Governor, State of Indiana, recommending repeal of the provisions of Indiana Public Law 87-Acts of 1982 (House Enrolled Act 1055) which allows motorists approaching a "T" intersection in the top of the "T" to proceed straight ahead after stop even though they are still facing a red traffic signal indication.

THE INDIANA LAW

The new T intersection law involves through movements on a red signal. Beginning September 1, 1982, a motorist is allowed to proceed straight ahead on red after coming to a complete stop when all of the following are true:

1. The motorist approaches the intersection in the top of the T,
2. The intersecting highway is on the motorist's left,
3. There is not conflicting traffic (such as pedestrians), and
4. The motorist is facing a steady red traffic signal.

At some T intersections, this TOR movement is prohibited. Motorists are advised that the movement is not permitted through the use of a sign reading 'No Thru On Red'.

TOR IMPACTS

ITE Task Force participants identified various perspectives of the TOR issue. While a broad spectrum of opinion existed, a consensus agreement was reached on each impact.

1. ENEGERY AND POLLUTION
   Although some amounts of energy may be saved and some pollutants may be reduced through the application of the TOR law, the magnitude of these savings is insignificant in relation to the increased hazards created to both vehicles and pedestrians and the degradation of the meaning of the red signal.
2. SAFETY
   A review of conflicts leading to accidents indicates that there could be a decrease in rear-end type conflicts but an increase in other conflicts. The overall safety problems of the law would appear to be greater than any benefit received in reduction of rear-end accidents.
3. HUMAN FACTORS
   Although difficult to measure, the following potential impacts on drivers were identified.
   a. The Indiana law could further undermine respect for the red traffic signal.
   b. There will be potential confusion on which intersections are "T" intersections, and which are not.
   c. Lack of understanding of TOR by out-of-state drivers in Indiana and Indiana drivers outside the state.
   d. The eastern vs. the western rule for signing of prohibited vs. permitted movement could become an issue.
   e. Expectancy of drivers regarding the movements of other drivers within the intersection is affected. Sympathetic movements can be expected on other legs of the intersection.
4. IMPACT ON OTHER STATES
   State traffic engineering groups must make themselves more aware of relevant items being considered in their individual legislative process.
   A bill was introduced in the 1982 Florida legislative session which would change the meaning of the red traffic signal and allow a motorist, after stopping, to proceed through or turn left on a steady red signal indication between the hours of midnight and 5:00 a.m. A successful effort was made to defeat the Florida TOR by the Florida ITE Section.
5. FEDERAL FUNDING RAMIFICATIONS
   The Federal Highway Administration has determined that Federal funding will not be approved for expenditure at intersections which utilize TOR.
6. UNIFORMITY OF LAWS AND TRAFFIC CONTROL DEVICES
   The Technical Committee on Signals of the National Committee on Uniform Traffic Control Devices proposed a resolution supporting the FHWA funding position.
   The TOR law gives a different meaning to the red traffic signal in Indiana than in any other state. This nonuniform meaning is likely to cause confusion which may result in increased accidents and hazards to motorists and pedestrians.
   The Indiana law is unclear, stating in effect that certain vehicles may proceed "straight ahead" except when a sign is in place prohibiting "such a turn". Drivers unfamiliar with the law could assume that absence of a "no thru on red" sign on the other legs of a "T" intersection infers that the movement is permissible on those legs.
7. LOGICAL EXTENSION OF RIGHT TURN ON RED
   After a discussion of whether TOR could be considered a logical extension of Right Turn on Red, the consensus was that TOR is not because of the additional subtleties and complications of the Indiana law.
8. ITE POLICIES
   The Task Force concluded that the Indiana TOR law would not be in conformance with official Institute policies and positions. The Institute has three policies which relate to the issue of TOR.
   a. "to support with continuing action the concept of a basic, uniform system of laws and ordinances..."
   b. "to support and promote efforts to identify areas of public misunderstandings of traffic control elements and to educate the public in the meaning and application."
   c. "to support with continuing action the concept of a basic, uniform and worldwide system of traffic control devices."

   It has been the official Institute position to support conformance by the states to the U.S. Manual on Uniform Traffic Control Devices.
9. LEGAL IMPLICATIONS AND LIABILITY
   Individual professionals and agencies responsible for implementing law of this type may experience a significant increase in legal liability exposure. The Task Force suggested that the FHWA and the Indiana Department of Highways issue rulings on the impact of the law on the individual agency's liability exposure.
10. PUBLIC ACCEPTANCE
    It appears that the majority of the motoring public in Indiana are not aware of the specifics of the new law. Those who expressed an opinion appeared to be opposed to it.
11. DELAY
    TOR at a "T" intersection can reduce delay. This reduction in delay is minimal in comparison to that which can be achieved through optimized operations of signals.
    In some instances, TOR may increase delay. Through movements on the red signal at intersections which are within coordinated signal systems could experience additional delay due to increased stops and starts outside the green band.
12. LAW ENFORCEMENT
    The most apparent impact of the Indiana law upon enforcement would be that it could undermine the basic premise that traffic control devices should be self-enforcing.
13. PEDESTRIANS AND BICYCLES
    The Indiana law increases trauma for pedestrians, the elderly and handicapped, because they must now

contd. next page

be additionally concerned with drivers going straight through the red and sympathetic movements from other approaches because of driver confusion.

14. TRANSIT OPERATIONS
The consensus of the Task Force was that the potential impacts of TOR on transit vehicle operations was insignificant.

15. SIGNAL OPERATIONS AND SIGNAL SYSTEMS
Actuation of signals by motorist who make a TOR maneuver will increase the delays to vehicles on other approaches. TOR movements within any signal system can contribute to the disintegration of the desired platooning effect. Where signals are subject to preemption there would no longer be a certainty that all vehicles would remain stopped.

16. CAPACITY
Capacity gains would be minimal and applicable only during high volume hours.

CONCLUSIONS

The following conclusions and/or recommendations were made by the ITE Task Force:

Forward a letter to the Indiana Governor and Legislature supporting immediate repeal of the Thru-on-Red law. (Accomplished January 28, 1983)

Develop an ITE position statement. (Technical Council position statement approved on January 16, 1983)

Establish an ITE committee to help create ITE membership awareness of preferred alternatives to Thru-on-Red. (Initiated)

Inform ITE members of this issue and what the ITE response has been.

Refer to the ITE Policy Committee for consideration regarding Thru-on-Red and optimum signal operations. (New Policy endorsing increased efforts to optimize signal operations is now being drafted.)

Inform the Legislative Committee of the letter to the Governor and Legislature and request assistance to promote involvement by ITE Sections in legislative activities. (Actions were initiated to provide legislative presentations at Section meetings and to provide information packages to Sections on various legislative issues.)

Recommend to the Indiana Department of Highways, FHWA, the Indiana Section, and Purdue University that a joint effort be taken to thoroughly evaluate the impacts of the law.

Forward information packets on this issue to the ITE sections.

Prepare packets for the media and the general public which promote improvements to traffic signal operations.

Inform ITE members of available federal funding resources for traffic signal improvements.

POSITION STATEMENT

Following the Task Force meeting, the ITE Technical Council issued the following position statement which was approved by the ITE Executive Committee.

The Technical Council of the ITE in consideration of the legislation passed by the State of Indiana, concludes the following:

1. TOR does not provide significant measurable delay reductions, energy savings, pollution remissions, or capacity improvements.
2. TOR has strong implications of overall safety detriments to vehicular and pedestrian traffic.
3. TOR is contrary to the provisions of the Uniform Vehicle Code, Model Traffic Ordinance, U.S. Manual on Traffic Control Devices, and the policies of the ITE.
4. TOR has increased legal implications and liability.
5. Lack of optimized, coordinated and actuated traffic signal operations can be assumed to be a reasonable cause for TOR consideration by agencies.

The Institute continues to encourage state and local agencies to pursue broad implementation of other signal operation measures which can reduce unnecessary stops and delays at traffic signals without compromising safety. Motorists will be much better served by these measures.

By Melvin E. Meyer, P.E.

SECOND DUES NOTICE

A second dues notice was sent out on April 18 with a reference to 1982 Section Membership dues. This was an error and should have referred to 1983 Section Membership dues. If you have not paid your 1983 dues please take a few minutes from your busy schedule and send a check for $8.00 made out to ITE-Michigan Section to:

Robert Lariviere, P.E.
Michigan Department of Transportation
Traffic and Safety Division
P.O. Box 30050
Lansing, Michigan 48909

There are still approximately 60 members who haven't paid their dues. Those who have not paid by July 1 will receive a third notice with a $2.00 late charge. Prompt payment will avoid the late charge and would be appreciated by your board of directors.

By Bob Lariviere - Treasurer

SAFETY RESEARCH AVAILABLE

The FHWA has recently published a two volume report entitled Synthesis of Safety Research Related to Traffic Control and Roadway Elements. Combined, these reports provide up-to-date research findings on specific design and control features in 17 subject areas. These reports contain useful information on important and very timely safety subjects that can help you do a better job.

For more information about these reports and how to order, contact Morrie Hoevel at the FHWA Division Office, PH: (517) 377-1842.
by Gary Holben

THIRTY DAYS HATH SEPTEMBER,
APRIL, JUNE AND THE SPEED OFFENDER.

TRUCK LENGTHS

The Surface Transportation Act of 1982 was passed by Congress last year. It provided several changes in the truck width, weight, and length limitations. Truck length is the topic which has recently generated a great deal of discussion in Michigan. Specifically, the single semitrailer has received more attention than double trailers because of the operational problems associated with long wheel-based vehicles due to off-tracking on curves and turns.

Effective October 1, 1983, all states are required to allow a minimum 48-foot semitrailer on designated routes. An interim designation of routes has been made by the Federal Highway Administration which includes all interstates, state freeways, and a large percentage of federal aid primary routes. Michigan's "green route system" has been very extensive. Therefore, only a small increase in mileage was added to our system by the FHWA.

The real controversy is what length should be allowed for single semitrailers. The issue is ecomonics versus operational and safety considerations. The trucking industry obviously prefers larger units for economy while the public is opposed to larger vehicles. The safety issue has been researched with the result that there is very little data relating accident experience with truck length. We do know the off-tracking problems and the inconvenience and delay caused to other road users when larger vehicles must negotiate tight intersections or when loading and unloading must be done from the street.

MDOT's Traffic and Safety staff examined this issue at the request of the State Transportation Commission. Information regarding accident trends, vehicle length trends, and what position on truck length is being taken by border states to Michigan was presented to the State Transportation Commission at its May 10 meeting. After considerable discussion of the issue, a decision was made by the commission to recommend to the legislature that semitrailer lengths should be set at 50 feet. MDOT staff will now draft legislation that will incorporate the requirements on truck size that are contained in the Surface Transportation Act of 1982 including a 50-foot maximum length of semitrailers.
Article prepared by M. E. Witteveen

AURAL SEX
Virginia is for Listeners

Looking for ways to cut its ballooning phone bill, the state of Virginia ran a computer check on the patterns of its employees' long-distance calls. It turned out that in March, 2,509 calls went to a single New York City number. What for? A 57-second recorded message that titillates dialers with aural sex, specifically the breathless sounds of an ersatz liaison in which the imaginative caller can pretend that he (or she) is a participant.

"The largest number of dialings, it was learned, came from... the department of highways and transportation."

Virginia Governor Charles Robb first heard of the decadent direct dialing from his press secretary. "There's some good news and some bad news," George Stoddart told Robb. "The bad news is that state employees from 84 agencies racked up more than $1,000 in telephone calls to a pornographic recording in New York. The good news is that none came from the Governor's mansion." The largest number of dialings, it was learned, came from offices at the University of Virginia and from the department of highways and transportation. There were also a scattering of calls from the department of the visually handicapped and a state geriatric hospital.

PEOPLE in the news . . . .

May 25, 1983

Mr. Richard Beaubien, P.E.
President, ITE
City of Troy
500 West Big Beaver Road
Troy, Michigan 48084

Dear Mr. Beaubien:

On behald of the Easter Seal Society of Oakland County, Inc. I would like to express our sincere appreciation for the Century 200 Car Seat you recently donated to our B.U.K. (Buckle Up Kids) Program.

Donations from concerned Clubs and Organizations such as yours have helped us provide the usage of a safe car restraint to over 150 children.

Again, thank you for helping us make the first ride a safe ride.

Sincerely,

Mary E. Griffin

Mary E. Griffin
Program Director

President Richard F. Beaubien, P.E., presents a child safety seat to Mary Griffin of the Easter Seal Society in Pontiac, Michigan on May 2, 1983.

WELCOME

NEW MEMBERS

Brian Bowman, Goodell-Grievas Inc.
Michael Cynecki, Goodell-Grivas Inc.
Kenneth Opiela, Goodell-Grivas, Inc.
David J. Paul, City of Romulus
David E. Call, City of Farmington Hills
Len Trzaskoma, City of Warren
Michael Slater, City of Traverse City
Anthony Nowicki, City of Monroe
John Oryszczak, MDOT
Pete Walacazage, IDC Corp
Dennis Grylicki, Oakland CRC
Lee Cochill, Sterling Heights PD

STUDENT MEMBERS

Peter LaMourie, Michigan State University
Kevin McCarthy, Michigan State University
Linda Reed, Michigan State University
Mun-Ho Doh, Michigan State University
Randall Chesney, Michigan State University
Amy Bohucki, Michigan State University
Jacquelyn McGhee, Michigan State University
Fred Coleman, Michigan State University
Pinardi Koestalam, Michigan State University
Joseph E. Hummer, Michigan State University
Uchenna Richard Akwiwu, Michigan State University
Aris Drakopoulos, Michigan State University
Koji Kuroda, Michigan State University

STAN GROSS RETIRES

Stan Gross, Superintendent of Traffic Operations for Detroit D.O.T., has retired after 34 years with the City of Detroit. Stan is a Past President of the Michigan Section of ITE and a native Detroiter. He not only took his job seriously, but was well known as a marathon runner in Southeastern Michigan.

Stan has already moved to Albequerque, NM to assume the responsibilities of Traffic Operations Engineer for the City. Liz will follow as soon as their home is sold. They have two sons, Alan and Nathan. We will miss Stan's perpetual smile and kind word for everybody, and we wish him & Liz well in their new home.

HIGHWAY CRACKS DON'T REFLECT UP

Strips of heavy woven fiberglass show promise of eliminating reflective cracking even on badly cracked highways.

Easily applied, the fiberglass strips can be driven over within a few minutes of application. The maker of the strips claims that they will, when properly applied, resist traffic for as much as three weeks before an overlay is needed. Actual experience backs up this claim and on one Illinois project overlaying was delayed for five weeks with no ill-effects.

Owens Corning Fiberglass supplies the fiberglass strips in 12, 24, or 44 in. widths in rolls of 240 ft. A specially modified asphalt cement is also supplied as part of the system

The system has been extensively tested and two year old projects show no signs of reflective cracking.

For further information on a recent county project, please contact Joe Gaesser, Kendall County, Box 636, Yorkville, Illinois 60560 (312) 553-7616.

SUIT ALLOWED IN DRINKING CASE

The family of a 19-year-old man who drank at a wedding reception and died in a car accident that night can sue the party hosts for letting him drink, the state Court of Appeals ruled Wednesday.

The appeals court reinstated a lawsuit filed in Midland County Circuit Court against four people who helped run a July 1979 reception attended by Jamie Longstreth, a minor, who was driving when the accident occurred. The Circuit Court had dismissed the suit.

Longstreth's family argued that the hosts had a duty to keep him from drinking at the party and that the drinks led to his death.

The hosts argued that wedding receptions are not covered by the Michigan Liquor Control Act.

The appeals court, however, said lawsuits still may be filed "for injuries or death caused by the furnishing of liquor to a minor by a social host or other persons not falling under...the Liquor Control Act."

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