

LEGAL IMPLICATIONS OF HIGHWAY SKID RESISTANCE

At the end of the third session of the symposium those who presented papers answered questions from the audience. This is an edited transcription of the session. The moderator was W. A. Goodwin, University of Tennessee at Knoxville. The panelists were Robert F. Carlson, California Department of Transportation; William Gartner, Jr., Florida Department of Transportation; D. W. Loutzenheiser, Federal Highway Administration; and William B. Somerville, Smith, Somerville and Case, Baltimore, Maryland.

Question

What is the necessary extent of the engineer's compliance with the state of the art?

Somerville

A highway designed today could be perfectly adequate for present and anticipated future needs and could be an example of good engineering design. But, in 15 years, that original design may not meet the state of the art. If there were an accident and there were no statute of limitations, the engineer should not be liable. There is, however, a question of the continuing duty, if there be such, of the design engineer to follow the project and make recommendations for changes in the design of the facility.

Question

It is my opinion that we do not know what the minimum available coefficient of friction should be. Do you agree? What is needed for wet weather driving?

Goodwin

Is the question that you do not feel that we know what the minimum coefficient ought to be?

Comment

Not only that but that we do not know what it is.

Loutzenheiser

I presume you are talking about the use of a single factor on a countrywide basis. Total conditions are known to be sufficiently different that we cannot expect to describe them with a single skid number and say that everybody every place ought to fix highways that are below it. There is just too much variability in the physical part of the highway, the weather, tires, drivers, and many other things. I doubt that we can ever arrive at a single factor. Within the practical realm of what we have now it certainly is possible for each state or agency to determine, on a relative basis, at least, the bad spots and fix them. This calls for flexible criteria depending on the amount of money available and what we are able to do. A substantial effort should be based on what we can do today, but it would not be based on a uniform standardized criterion.

Comment

I agree with your comment that many states do not have enough money to bring all of their highways up to a minimum skid number at once. Texas would probably take 2 or 3 yearly programs for this project alone and would have to shut down everything else.

Question

What is the statute of limitations for Texas?

Somerville

Texas has had a statute of limitations since 1969 and it is 1 of the 18 states that has a 10-year statutory period.

Comment

You ought to let them go ahead and sue the states at fault. We do not have any money anyhow.

Gartner

We have 1 inspector in Florida who makes about \$500 or \$600 per month who just got sued for \$100,000. I do not think he has the money, and he does not feel happy about being sued.

Carlson

In California we have a specific statute for the occasion when an employee is sued for damages that arise out of the scope and course of employment. By it, the state is required to provide that employee with a defense and to pay any settlement or judgment. I do not believe that an engineer's personal fortune should be put on the line if he or she is sued individually when the plaintiffs should really be suing the state.

Question

Most states report that the state highway department could be held liable in the absence of warning signs. But, the presence of a warning sign announces that the state is aware of the dangerous conditions, does it not?

Carlson

Warning signs are a means to prevent the imposition of liability on a government agency. Also, by putting up a warning sign you are admitting, at least in California, that the highway may be dangerous when wet. I believe that warning signs are not the remedy because we are still going to have accidents. I firmly believe that we should be preventing these accidents by using other remedial measures such as grooving to increase the coefficient of friction. We have warning signs to limit government liability, but we also want to prevent accidents.

Gartner

Department officials are caught in the conflict of putting up warning signs and thereby exposing themselves to liability. But, they also have a responsibility to the public to identify any hazardous condition. In that respect I think it is the duty of highway engineers, if they are aware of hazardous situations, to do 2 things immediately. First, make everyone else aware, and, second, take corrective action. I think that if you do both of these things in a reasonably prompt manner you will do more to protect yourself and motorists than you would by doing anything else.

Question

We have a county engineer who refuses to develop accident spot maps for his county because he feels that this will increase his liability. Do you care to comment on that?

Carlson

There is nothing wrong in the mere developing of accident frequency maps for specific locations because accidents are caused by many reasons other than the highway itself. Many plaintiffs' attorneys in California ask for printouts of our summaries of accident locations and we give them to them. But I do think that to develop a safety program you have to have an accident profile on all parts of your highway system. This is 1 way to prevent accidents, and this information can help you as well as hurt you.

Question

I assume that the law makes no real distinction between the responsibilities of the state and those of lesser governments. What litigation has involved counties and municipalities?

Carlson

The California liability law applies to all levels of government agencies from the state down. The same law applies to every government agency with respect to liability for dangerous conditions on state highways, city streets, and county roads.

Question

How about the number of suits? Is it ordinarily the state that is being attacked or is it more frequently the counties?

Carlson

I have not personally checked the statistics of claims and volume of litigation against cities and counties but, according to attorneys doing defense work in this area, the number of claims and lawsuits is substantial. I don't know how this volume relates to the amount of litigation against the state.

Question

What liabilities are associated with full-scale field experiments designed to improve the state of the art?

Goodwin

The question is, What responsibility does the engineer have during a full-scale test on a public highway?

Carlson

We have conducted dynamic tests on a highway under the supervision of the expert witness who was going to testify on our behalf in a skidding accident case. If it is a high-speed freeway it is very difficult to shut down part of that highway to conduct these dynamic tests. The engineer and the state could be liable in conducting this type of testing. After an accident, we have conducted these tests at an abandoned airport site with the same type of vehicle, with the same type of tires, and, presumably, with the same tire inflation on pavement that has the same characteristics as the highway in the accident.

Gartner

I thought that the question related to pavement tests in which different types of pavement surfaces are put down and some surfaces turn out to be more slippery than the

original pavement. In my opinion, when you conduct such an experiment you involve yourself in a certain amount of risk. The only thing you can do is to make motorists aware that you are conducting experiments and get the data as rapidly as you can.

Question

What is the liability if maintenance is required and the request for appropriation is denied by the legislature?

Carlson

We have in California the defense of what we call "reasonableness," the reasonableness of the action of the state, the state highway department, and its employees. In a case in which money was the answer to this problem and we could not get it from the legislature, we would use reasonableness as a defense. We have a problem with icy bridges in California. One of the best ways to deice a bridge besides salt is to put heaters in the bridge deck to automatically come on when the bridge reaches a certain temperature. We do not have enough money to take care of all the bridges that could use such a feature. The answer depends on the law in each state.

Somerville

It goes back to the New York case in which the court found that the state had done all that it possibly could, and that becomes a finding of fact. You know that on toll facilities there is a maintenance budget. If you do not have anything in it to do a particular piece of work I suppose you put up a sign that says "out of funds" or something like that. It gets down to the fact question, Has the state done all it could possibly do in good sense?

Question

We have had instances in our state in which expert witnesses testified against us who, we felt, were not competent in their field. Yet, it is the judge who determines whether a witness should be allowed to testify. I wonder if you can give us any direction about how the defense should go about getting an expert witness disqualified?

Somerville

One of these days we are going to be faced with the new federal rules of evidence. When they come into effect almost anything goes. I can be an expert or you can; all you have to do is say that you are an expert. Then it comes down to testing the expert, and the real tools are the publications of the Transportation Research Board. If a so-called expert witness' criteria are not found within the great volume of work that has been printed by the TRB, then I think that is a good attack. If a person is testifying today about what was good about a design long ago, then you can go back as far as you wish with material that has been printed by the TRB. Another method to use to attack a witness you think might be a fraud is to look around to see where this adverse witness has testified before. Get transcripts of testimony or depositions because the truth will catch up to a witness who testifies a lot.

Question

Do some of the states have an unfortunate tendency to treat letters from citizens complaining about a particular highway problem as just somebody else making a noise?

Carlson

That is a very good point. Notice can come from sources other than public employees connected with the highway. It can even come through editorials in the paper about a "blood alley" or some dangerous section of highway; it can come through letters to the editor; and it can come directly from letters from concerned citizens to the state highway engineer. These letters should not be treated lightly. They can be the founda-

tion of the next lawsuit against the state government for not taking care of the matter. Because the government tends to keep all these letters on file, if nothing has been done about the situation mentioned in the letter, you are in a very bad position. Our instructions are to answer the letter if necessary and, if not, to at least put something in the file to indicate that an engineering decision was made regarding the complaint.

Question

Is the Florida Department of Transportation involved directly in driver education?

Gartner

No. The Department of Transportation is not, but the Department of Highway Motor Vehicles and Safety is. They are the branch of our highway patrol that issues driver's licenses. I have discussed driver education with the director of the Department of Motor Vehicles and Highway Safety and he has agreed that we need to put more emphasis on wet weather driving. This training generally is not given in non-snow-belt areas.

Question

Is the Federal Highway Administration going to get involved in driver education?

Loutzenheiser

Under §402 and 403 of the 1966 Highway Safety Act funds go to the governor and, through him, to state organizations. Driver education is not a part of direct federal-aid highway funds. But there is a federal program of funding that can be used for driver education.

Goodwin

Standard 304 of the National Highway Traffic Safety Administration requires driver education.

Question

The previous sessions have been devoted to attaining and maintaining minimum skid numbers. If you attain the recognized minimum skid number and there is a skidding accident, does this constitute a degree of defense or a valid defense in a lawsuit?

Carlson

Skidding accidents can happen even though the pavement has met the established minimum coefficient of friction. But, it is a good defense because the state has done all that is reasonable under the particular circumstances. The duty of care to that driver will be determined by the court or the jury. Just the fact that you have reached that magic number does not mean that you will not be sued or that there may not be liability.

Somerville

The mere fact that you have not broken the law is not necessarily a defense in a suit for damages. As with anything else, other pertinent facts could undermine your case.

Question

It is my understanding that according to the Supreme Court only a jury can determine what is reasonable. Would you care to comment on that?

Carlson

Reasonableness is a word used by lawyers to cover up and excuse their thinking when they do not know which way to go. To engineers everything is black or white; to lawyers everything is gray and in that gray area lawyers always use the term reasonableness. But you are right, the jury determines the reasonableness of the case. When they are

determining reasonableness they are second-guessing the engineer.

Question

It seems that FHWA or possibly ASTM established a set of minimum skid numbers with the idea that federal funds had to be considered. It might be important to view that these numbers were not rigid enough, that they are still not safe. Could FHWA or ASTM be in some way liable for the establishment of specifications that were not adequate?

Gartner

And, Loutzenheiser mentioned that we can get federal aid if the skid number is 35 or lower. If it is 36 or 40 we cannot get federal aid for that particular job. That adds on to the question.

Carlson

That is a very difficult question to answer—what the liability of the federal government for establishing inadequate coefficient of friction would be. I would say, at least based on my knowledge of California law, that there would be no liability for the setting of a standard. It is like a promulgation of a law and would have a similar effect. When it comes down to money there is a real problem. A jury may second-guess you and say, Why did you spend \$100,000 on that landscaping job when you should have spent the money grooving the highway? Our only answer is that our engineers have made these determinations based on priorities, warrants, money, size of job, and equipment. That is our best defense.

Question

Would a failure to provide inspectors and perform skid testing be proved negligence?

Carlson

No, the failure to inspect is not the basis of liability in California. But, having an inspection system and using it properly is the basis of defending a lawsuit. However, having one does not mean you will win.

Question

If you had a hazardous condition and you failed to do the inspection, would this be a basis for liability?

Carlson

The condition of the highway is the basis of liability, then proving there was notice of the condition. If the condition had been there for months, the passage of time would be a basis of notice and liability.

Question

If research should show that higher skid resistance was needed along express highways at curves or stop signs than on tangents and you corrected this, thereby causing a differential in skid numbers, what would be the legal concerns?

Gartner

That was a topic of extensive discussion brought up at our committee session but the question was not resolved. We would just be moving the danger point from 1 point on the pavement to another. Correcting skid resistance in 1 lane and not correcting it in the adjacent lane can create a worse hazard than by not correcting it in either lane.

Goodwin

I believe the question is: What liability does the engineer have if he or she has in-

creased, in a curve, the minimum skid number but has not increased the value on the road before the curve? In this case, you have 2 different skid numbers, both of which may meet your legal requirements but may require a different driver response.

Carlson

We have had 1 situation in California in which a lane of asphalt was added onto a concrete section. Here, there may be a different coefficient of friction. Test results vary at every test spot. For example, in 1 spot the skid number was 36, in another, 40. You're going to have this variation in highways at different locations. I have not run into a liability situation in which 1 section of road was higher or lower than another adjacent section. I do not see how it adds to or detracts from liability.

Question

Do we need some guidance from the legal profession about whether we should try to establish minimum skid numbers with the best technology we have now?

Carlson

State engineers who are making replies to different agencies should consult with their attorneys because state laws vary, the duty of the engineer varies, the duty of the state varies, the laws of evidence vary from state to state.

Goodwin

Suppose that the Federal Highway Administration imposes on each state a set of minimum skid resistance values. What, then, is the engineer's liability?

Somerville

If the federal government sets standards, someone must provide the money to implement them. The money has to come from somewhere to meet the standards that have been imposed.

Question

I wasn't thinking of having legislators involved in setting standards when I first asked the question. Would we not be better off as individual state highway departments and departments of transportation to set some numbers for our state, for our people's driving habits, rather than have standards imposed on all the states?

Gartner

Is there a "magic number"? I think that there is, but what it is I do not know. I would rather see the setting of minimum skid numbers delayed. But, I think that we should bring all our roads up as high as possible. There is a moral requirement as well as a legal requirement to provide minimum skid resistance.

Loutzenheiser

If you are going to name a number you must have a base level of measurement. We are lacking this at the moment. And, a single number would not provide the necessary flexibility for widely varying conditions.

Question

If a state highway department set its own levels of performance, they would serve as persuasive evidence in the same way as an established safety program would, would they not?

Carlson

If you failed to meet established standards and warrants, that would be used as evidence by the plaintiff. If the standards and warrants were met, that would be used as evidence by the state's attorney.

Question

Would you not be better off in either case?

Goodwin

In other words, would the states not be better off to have an effective highway safety program and establish warrants?

Carlson

Very definitely yes, but they have to have the wherewithal to meet those standards and warrants.

Question

A previous question asked what degree of liability does a highway research engineer have if he or she builds a full-scale pavement test and an accident occurs on that experimental pavement? And it was determined that the engineer might have some liability. If in another state it had been shown that a given method of construction was good in alleviating skid resistance, and to determine whether that method applied in a different environment you ordered a full-scale test to be performed, would the same level of liability exist?

Carlson

Based on California law, yes.

Somerville

I think that warning signs would provide some protection from liability for the engineer.

Question

If there were an accident in a section that was supposed to be resurfaced in the next year, would it be a defense that the state was attempting, within fund limitations, to resurface the worst sections and had not been able to do this section because others were in poorer condition? Is that a defense?

Somerville

The basis for the defense would be that the state budgeted its money on the best engineering advice. The basis for establishing liability would be that the state did not follow the best engineering advice in establishing priorities.

Carlson

It is a defense but not a complete defense. It is just a piece of evidence that the state will introduce to prove that it had a reasonable system of warrants and priorities. But the case will still go to a jury, at least in California, and the jury will determine the reasonableness of your warrants and your priorities. But it is the best evidence in this situation.

Question

In Kansas, we had an improvement under contract that we were not allowed to put in

evidence. It was not a matter of whether we were doing the best possible job. It was only a matter of whether the condition was dangerous. Would you care to comment on that?

Carlson

As I indicated earlier all the laws in all the states vary. I hope you follow the warning on the patent medicine bottles that, when the pain persists, consult your lawyer.