

**Library Note:**

It appears that the minutes and agenda were provided in duplicate for the 2-5-81 meeting of Senate Transportation.

Research Library  
May 2014

MINUTES OF THE  
MEETING OF THE SENATE COMMITTEE  
ON TRANSPORTATION

SIXTY-FIRST SESSION  
NEVADA STATE LEGISLATURE  
February 5, 1981

The Senate Committee on Transportation was called to order by Chairman Richard E. Blakemore, at 2:00 p.m., Thursday, February 5, 1981, in Room 323 of the Legislative Building, Carson City, Nevada. Exhibit A is the Meeting Agenda. Exhibit B is the Attendance Roster.

COMMITTEE MEMBERS PRESENT:

Senator Richard E. Blakemore, Chairman  
Senator Joe Neal  
Senator James Bilbray  
Senator Clifford E. McCorkle  
Senator Wilbur Faiss

COMMITTEE MEMBERS ABSENT:

Senator Lawrence E. Jacobsen  
Senator William Hernstadt

STAFF MEMBERS PRESENT:

Fred Welden, Senior Research Analyst  
Kelly R. Torvik, Committee Secretary

Al Stone, Director, Department of Transportation, stated that the Department was basically against S. C. R. 8. He felt that there is enough information available on the cost of deteriorating highways. (See Exhibits C, D, E, and F). He asked that the committee defer any action on the resolution until testimony is complete. If, after all testimony is given, the committee feels that the information is inadequate, the Department will cooperate with the committee by providing any information necessary.

Mr. Stone stated that S. C. R. 9 would have a direct impact on the maintenance fund which is already severely short of revenue. He said that in order to make up for this shortage the Department would have to use new construction funds to maintain the highways. He hoped that the committee would find an alternative method of promoting gasohol other than reducing highway revenues. Mr. Stone

Senate Committee on Transportation  
February 5, 1981

noted that should the Department be successful in improving the surface of the state's present system they would be decreasing revenues because of the decrease in fuel consumption. (See Exhibit F).

Don Hattaway, Carson City Manager, voiced his support for S. B. 7. He explained that the bill basically changes the population limits under which the state operates the motor vehicle registration process. This would simply move Carson City into a category with Washoe and Clark Counties. He stated that the two basic reasons for the bill were convenience and cost. He explained that under the present system the registration process takes place in many different places throughout Carson City. Passage of this bill would consolidate these processes. He presented cost breakdowns prepared by the city. (See Exhibit G). Mr. Hattaway said that the City would be cooperative with the State in the transition period.

Mr. Hattaway pointed out that A. B. 43, which allows the Department of Taxation to appoint the Department of Motor Vehicles as a collection agent for the use tax, runs hand in hand with S. B. 7. He did suggest that the population limit be adjusted in A. B. 43 so that it coincided with S. B. 7.

Hale Bennett, Chief of Registration, Department of Motor Vehicles, stated that the Department had no objection to S. B. 7. Senator Blakemore asked where the use tax was presently collected. Mr. Bennett explained that the tax only applies when a state resident buys a car out of state. Before they are able to register the car the resident must get clearance from the Department of Taxation. Senator Blakemore pointed out that some sort of mechanism must be provided for future growth in the state.

Mr. Bennett explained that in the small counties of less than 30,000 population it is not economically feasible for the State to take over motor vehicle registration.

Senator Bilbray asked if there is any problem in the transfer of employees from the City level to the State level in regard to sick and annual leave. Mr. Bennett answered that there is no problem. The City and State acquire leave at the same rate. In regard to equipment, Mr. Hattaway stated that they would be willing to work with the State in the transition.

Mr. Bennett felt that scales should be provided to the Carson City office in order to make it a full service branch of registration. He stated that these scales would charge \$1.00 per weigh in.

Senate Committee on Transportation  
February 5, 1981

Daryl Capurro, Nevada Motor Transport Association, spoke on the disadvantages of S. C. R. 8. He felt that cost responsibility studies were too expensive and plentiful. He stated that an extensive federal study would be available in January of 1982. He did state that if adequate funds were not found for the Department of Transportation during this session that the Association would support an interim study.

In regard to S. C. R. 9, Mr. Capurro stated that states which adopted similiar proposals had developed serious shortages within their highway funds. He felt that there must be an alternative method of promoting gasohol.

Senator McCorkle asked if Mr. Capurro had any alternative methods in mind. Mr. Capurro stated that jobs would be created and a non-polluting industry would come into the state if this type of proposal was adopted. He suggested general fund assistance to the highway fund or property tax relief as alternatives. Senator Blakemore agreed that it should be approached from a different angle.

Kelly Jackson from the Nevada Department of Energy came to speak in favor of S. C. R. 9. He pointed out that Nevada has very little liquid fuel but the major industries in the state are driven by liquid fuel. He noted that S. C. R. 9 only directs a study of the possible exemption of certain petroleum-ethonal mixtures from motor vehicle fuel tax. Mr. Jackson felt that Nevada had a need and a potential to produce liquid fuel.

Senator McCorkle asked if Mr. Jackson had any ideas for promoting gasohol other than with a tax exemption. Mr. Jackson had no specific alternatives but he did feel that there is a need for an interim study to determine what long range approach the state might want to take on the issue.

Virgil Anderson from the Nevada Division of the AAA concurred with the viewpoint expressed by Mr. Capurro in regard to S. C. R. 9. He felt that the highway fund was in too poor of condition to be subject to loss of revenue. He suggested alcohol taxes and tax credits as methods of promoting gasohol.

Senator Blakemore felt that S. C. R. 9 should be re-referred to the Senate Committee on Taxation. He suggested a cover letter to be sent along with the bill stating that the Senate Committee on Transportation wished to keep it as an in-house study to determine the possibilities. Senator McCorkle asked that the

Senate Committee on Transportation  
February 5, 1981

committee defer discussion on S. C. R. 9 until another bill pertaining to the exemption of gasohol came to the committee. He did have a paper done by the Research Division of the Legislative Counsel Bureau which stated the losses to revenues if such a proposal became reality. (See Exhibit H).

SENATE CONCURRENT RESOLUTION 9 (Exhibit H)

Senator Bilbray moved that S. C. R. 9 be tabled until Senator McCorkle's bill came to the committee.

Senator Faiss seconded the motion.

The motion carried unanimously.

SENATE CONCURRENT RESOLUTION 8 (Exhibit I)

Senator Neal moved to indefinitely postpone S. C. R. 8.

Senator Bilbray seconded the motion.

The motion carried unanimously.

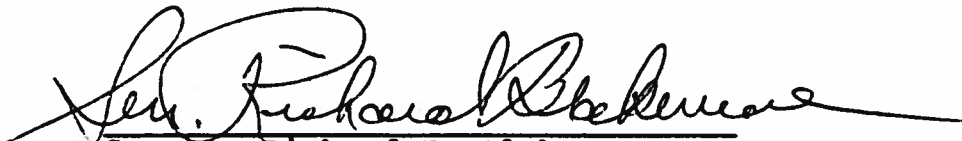
No action was taken on S. B. 7.

There being no further business the meeting adjourned at 2:45 p.m.

Respectfully submitted by:

  
Kelly R. Torvik

APPROVED:

  
Senator Richard E. Blakemore  
Chairman

Dated: 2/10, 1981

SENATE AGENDA

COMMITTEE MEETINGS

Committee on Transportation , Room 323 .

Day Thursday , Date February 5 , Time 2:00 p.m.

S. C. R. No. 8--Directs study of economic effect of using deteriorated highways.

S. C. R. No. 9--Directs study of possible exemption of certain Petroleum-ethanol mixtures from motor vehicle fuel tax.

S. B. No. 7--Limits designation of county assessors as agents of department of motor vehicles.

S. B. No. 44--Provides for restricted driver's license where license suspended for nonpayment of judgement.

MINUTES OF THE  
MEETING OF THE SENATE COMMITTEE  
ON TRANSPORTATION

SIXTY-FIRST SESSION  
NEVADA STATE LEGISLATURE  
February 5, 1981

The Senate Committee on Transportation was called to order by Chairman Richard E. Blakemore, at 2:00 p.m., Thursday, February 5, 1981, in Room 323 of the Legislative Building, Carson City, Nevada. Exhibit A is the Meeting Agenda. Exhibit B is the Attendance Roster.

COMMITTEE MEMBERS PRESENT:

Senator Richard E. Blakemore, Chairman  
Senator Joe Neal  
Senator James Bilbray  
Senator Clifford E. McCorkle  
Senator Wilbur Faiss

COMMITTEE MEMBERS ABSENT:

Senator Lawrence E. Jacobsen  
Senator William Hernstadt

STAFF MEMBERS PRESENT:

Fred Welden, Senior Research Analyst  
Kelly R. Torvik, Committee Secretary

Al Stone, Director, Department of Transportation, stated that the Department was basically against S. C. R. 8. He felt that there is enough information available on the cost of deteriorating highways. (See Exhibits C, D, E, and F). He asked that the committee defer any action on the resolution until testimony is complete. If, after all testimony is given, the committee feels that the information is inadequate, the Department will cooperate with the committee by providing any information necessary.

Mr. Stone stated that S. C. R. 9 would have a direct impact on the maintenance fund which is already severely short of revenue. He said that in order to make up for this shortage the Department would have to use new construction funds to maintain the highways. He hoped that the committee would find an alternative method of promoting gasohol other than reducing highway revenues. Mr. Stone

Senate Committee on Transportation  
February 5, 1981

noted that should the Department be successful in improving the surface of the state's present system they would be decreasing revenues because of the decrease in fuel consumption. (See Exhibit F).

Don Hattaway, Carson City Manager, voiced his support for S. B. 7. He explained that the bill basically changes the population limits under which the state operates the motor vehicle registration process. This would simply move Carson City into a category with Washoe and Clark Counties. He stated that the two basic reasons for the bill were convenience and cost. He explained that under the present system the registration process takes place in many different places throughout Carson City. Passage of this bill would consolidate these processes. He presented cost breakdowns prepared by the city. (See Exhibit G). Mr. Hattaway said that the City would be cooperative with the State in the transition period.

Mr. Hattaway pointed out that A. B. 43, which allows the Department of Taxation to appoint the Department of Motor Vehicles as a collection agent for the use tax, runs hand in hand with S. B. 7. He did suggest that the population limit be adjusted in A. B. 43 so that it coincided with S. B. 7.

Hale Bennett, Chief of Registration, Department of Motor Vehicles, stated that the Department had no objection to S. B. 7. Senator Blakemore asked where the use tax was presently collected. Mr. Bennett explained that the tax only applies when a state resident buys a car out of state. Before they are able to register the car the resident must get clearance from the Department of Taxation. Senator Blakemore pointed out that some sort of mechanism must be provided for future growth in the state.

Mr. Bennett explained that in the small counties of less than 30,000 population it is not economically feasible for the State to take over motor vehicle registration.

Senator Bilbray asked if there is any problem in the transfer of employees from the City level to the State level in regard to sick and annual leave. Mr. Bennett answered that there is no problem. The City and State acquire leave at the same rate. In regard to equipment, Mr. Hattaway stated that they would be willing to work with the State in the transition.

Mr. Bennett felt that scales should be provided to the Carson City office in order to make it a full service branch of registration. He stated that these scales would charge \$1.00 per weigh in.



Senate Committee on Transportation  
February 5, 1981

Daryl Capurro, Nevada Motor Transport Association, spoke on the disadvantages of S. C. R. 8. He felt that cost responsibility studies were too expensive and plentiful. He stated that an extensive federal study would be available in January of 1982. He did state that if adequate funds were not found for the Department of Transportation during this session that the Association would support an interim study.

In regard to S. C. R. 9, Mr. Capurro stated that states which adopted similiar proposals had developed serious shortages within their highway funds. He felt that there must be an alternative method of promoting gasohol.

Senator McCorkle asked if Mr. Capurro had any alternative methods in mind. Mr. Capurro stated that jobs would be created and a non-polluting industry would come into the state if this type of proposal was adopted. He suggested general fund assistance to the highway fund or property tax relief as alternatives. Senator Blakemore agreed that it should be approached from a different angle.

Kelly Jackson from the Nevada Department of Energy came to speak in favor of S. C. R. 9. He pointed out that Nevada has very little liquid fuel but the major industries in the state are driven by liquid fuel. He noted that S. C. R. 9 only directs a study of the possible exemption of certain petroleum-ethonal mixtures from motor vehicle fuel tax. Mr. Jackson felt that Nevada had a need and a potential to produce liquid fuel.

Senator McCorkle asked if Mr. Jackson had any ideas for promoting gasohol other than with a tax exemption. Mr. Jackson had no specific alternatives but he did feel that there is a need for an interim study to determine what long range approach the state might want to take on the issue.

Virgil Anderson from the Nevada Division of the AAA concurred with the viewpoint expressed by Mr. Capurro in regard to S. C. R. 9. He felt that the highway fund was in too poor of condition to be subject to loss of revenue. He suggested alcohol taxes and tax credits as methods of promoting gasohol.

Senator Blakemore felt that S. C. R. 9 should be re-referred to the Senate Committee on Taxation. He suggested a cover letter to be sent along with the bill stating that the Senate Committee on Transportation wished to keep it as an in-house study to determine the possibilities. Senator McCorkle asked that the

Senate Committee on Transportation  
February 5, 1981

committee defer discussion on S. C. R. 9 until another bill pertaining to the exemption of gasohol came to the committee. He did have a paper done by the Research Division of the Legislative Counsel Bureau which stated the losses to revenues if such a proposal became reality. (See Exhibit H).

SENATE CONCURRENT RESOLUTION 9

Senator Bilbray moved that S. C. R. 9 be tabled until Senator McCorkle's bill came to the committee.

Senator Faiss seconded the motion.

The motion carried unanimously.

SENATE CONCURRENT RESOLUTION 8

Senator Neal moved to indefinitely postpone S. C. R. 8.

Senator Bilbray seconded the motion.

The motion carried unanimously.

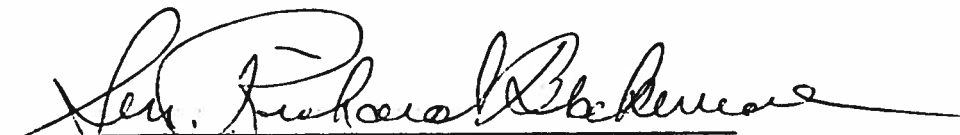
No action was taken on S. B. 7.

There being no further business the meeting adjourned at 2:45 p.m.

Respectfully submitted by:

  
Kelly R. Torvik

APPROVED:

  
Senator Richard E. Blakemore  
Chairman

Dated: 2/10, 1981

SENATE AGENDA

COMMITTEE MEETINGS

Committee on Transportation , Room 323 .

Day Thursday , Date February 5 , Time 2:00 p.m.

S. C. R. No. 8--Directs study of economic effect of using deteriorated highways.

S. C. R. No. 9--Directs study of possible exemption of certain Petroleum-ethanol mixtures from motor vehicle fuel tax.

S. B. No. 7--Limits designation of county assessors as agents of department of motor vehicles.

S. B. No. 44--Provides for restricted driver's license where license suspended for nonpayment of judgement.

ATTENDANCE ROSTER FOR

SENATE COMMITTEE ON TRANSPORTATION

DATE: 2/5/81

PLEASE PRINT NAME	PLEASE PRINT ORGANIZATION & ADDRESS	PLEASE PRINT TELEPHONE
Dave. Ataway	Carson City 813 N. Carson	882-5114
Al Stone	NDOT Carson City	885-5440
Ira Levine	Intern	784-4487
Terry Tanakaich	Nevada Dept of Transp	885-5440
BILL BURNAUGH	CARSON BOARD OF SUPERVISORS	882-5114
Howard Rodriguez	Carson City Services	887-1623
Terry Kiffin	Carson City	882-4226
Kelly Jackson	Nevada Department of Energy	885-5157
Helene Bennett	Registration Div DMV	885-5347
Larry E. Laune	Nevada Motor Vehicle T. Assn	331-6384
Virgil Anderson	Nevada Division - AAA	882-1890

This study estimates the added vehicle operating cost of driving on deteriorated roads in Nevada. This study includes only paved main roads, which comprise 13.2 percent of the state's total mileage, but handle 92.6 percent of the traffic volume.

Findings are based on data from the Nevada Department of Transportation, the Federal Highway Administration, the National Cooperative Highway Research Program (NCHRP) and on scientific road tests that measured fuel consumption, tire wear and vehicle damage relative to the quality of the road pavement in use. Vehicle depreciation, insurance, parking, tolls, licenses and registration were not included because these cost items exist regardless of road conditions.

#### Summary

- Badly worn roads add an estimated \$104.5 million a year to drivers' costs in Nevada because of wasted fuel, excessive tire wear and extra vehicle repairs. The total amounts to an average annual expense of \$175 per driver.
- More than one-half of the state's 6,612 miles of paved main roads (arterial and collector) are deficient by nationally accepted engineering standards.
- Drivers in Nevada logged an estimated 2.23 billion vehicle miles on these 3,706 miles of deteriorated roads in 1979 at a total vehicle operating cost of \$402.3 million. Had these roads been up to standard, this travel would have cost only \$297.8 million -- a savings of \$104.5 million or 26 percent.
- TRIP recommends a 10-year program to resurface, overlay or rebuild the 3,706 miles of deteriorated roads at an average cost of \$66.9 million a year, not including inflation or future deterioration.

# Users Reach Public Through Workshops, Forums

Coalitions of highway users and allied organizations in three states have reaped public relations benefits for highway improvement by conducting forums to disseminate the facts.

Highway users in New York used a unity theme in presenting their case for better roads at press conferences in Buffalo and Rochester. In opening remarks, highway user spokesmen said the theme is unity among the business community, the building trades, and industry "in working for an immediate injection of more state dollars to modernize our older roads and bridges."

Nine highway needs workshops were conducted in Colorado and nine in Wyoming, each sponsored in cooperation with state highway departments and local chambers of commerce, with officials of both filling key roles.

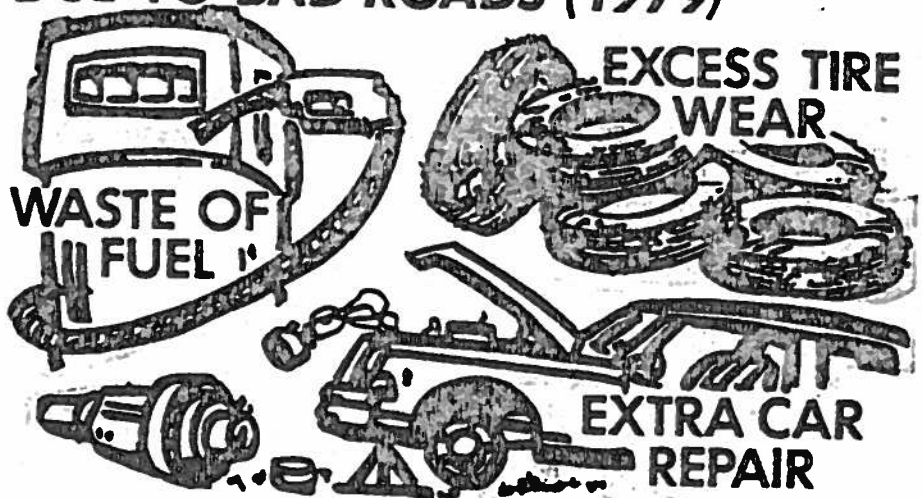
The welcome, presented by a local CofC official, was followed with an overview on state highway needs by the highway users conference chairman. Then run-downs on needs of state highways, county roads, and city streets were presented by a specialist in each system. The conference chairman concluded with an explanation of highway funding options. A question-and-answer period and an opinion survey on issues in highway funding proved to be essential parts of the programs.

Support for the workshops, broad based in both states, came from banks, business associations, contractors, a cab company, industrial development groups, organizations of public officials, and the state General Federation of Women's Clubs, which provided womanpower for telephone committees.

Slide presentations were prepared by both conferences to explain highway needs and improvement financing problems confronting all government levels: state, county, and local.

Pamphlets based on the slide presenta-

## \$150.5 MILLION WASTE DUE TO BAD ROADS (1979)



One of the slides prepared for forums in Colorado on highway needs and financing options illustrates the waste caused by bad roads.

tions were distributed, and other material was prepared to inform workshop participants of options available for increased funding.

The completed questionnaires collected at the end of the workshops indicated total awareness that the states have serious highway deterioration problems and that something must be done about them. There were opinion differences, however, on the best options, but participants generally agreed that revenues must be increased for highway improvements.

Conference leaders were pleased with press and broadcasting coverage of the workshops, and they reported satisfaction with the impact of their workshops on community awareness of the economic and social roles of good highway transportation.

Similar successes were scored in New York, where highway users and their allies have a specific goal to increase the amount of revenues from state taxes on motorists that are used for highway improvement.

The highway users say they pay more than \$1 billion annually in motor vehicle and highway use taxes, but state spending on roads has fallen to only 1.4 percent of the state's \$15 billion budget.

Road repair appropriations since 1969 have declined, the highway users said, from \$381 million to \$218 million. Many users contend that annual road repair expenditures should be increased to at least \$500 million annually.

The highway users also stressed that, in the face of decreasing highway expenditures, 25 percent of state highways and 38 percent of bridges are listed as "deficient" by highway department officials.

The highway users distributed at their meetings a list of benefits provided by good highways, including safer transportation, energy conservation, lower motor vehicle operating costs, increased opportunities for economic development, and jobs for the construction industry.

The forums paid off in publicity for New Yorkers, just as the workshops did for westerners. Newspaper and broadcasting reporters covered the meetings, then produced special stories and programs of their own on deteriorating road and bridge conditions.

## Traffic Fatality Toll Expected To Increase

The 1980 traffic death toll is expected to be the highest since 1973, according to projections of the Highway Users Federation.

HUF projects a 1980 traffic death toll between 53,700 and 54,300, about 2,000 more fatalities than last year, when 51,900 motorists were killed in traffic.

The 1980 traffic death rate—the number killed per 100 million vehicle miles of travel—is expected to top last year's rate of 3.40, although Federation analysts

point out that travel data still is insufficient to project deaths in relation to miles driven.

Traffic deaths hit an all-time high of more than 56,000 in 1972, remained at more than 55,000 in 1973, then dropped to 46,402 in 1974 after the Arab oil embargo and start of the national 55 mph speed limit. But traffic deaths have been rising yearly since 1976.

The projections are based on accident data through the first nine months of 1980 collected by the National Safety Council.

# Good roads do cost less

by Michael J. E. Shefflin, P.E.,  
Transportation Commissioner,  
Ottawa-Carleton, Canada

**W**e often say good roads cost less, but thanks to a progressive Council in the Regional Municipality of Ottawa-Carleton, we can prove it.

The 1980 current-budget requests will be 14 percent less than the 1977 budget received; that is, equivalent to 43 percent less in constant dollars over 1977, or a \$6.8 million saving this year alone.

The savings are possible because the Council a few years ago approved a program of resurfacing and repair at the right time as determined by testing rather than waiting until after the roadways deteriorated beyond repair. Today, the citizens enjoy a high standard of roadway, lower user costs and reduced tax requirements.

The first and most important area for improvement was in funds to carry out the proper program. If this seems to contradict our previous statement, remember the old saying, "You have to spend money to save money."

How do you get these "extra" funds? If there is one area in which the public works professional has failed, it is in educating citizens in the basic economics of road maintenance.

This has to change. You are the person responsible for this activity. You must find the way.

The key is communication. The best communicators are the political leaders. They have been elected by getting their story across to the public. The leaders need clear, credible facts to give to the public.

To say "we need the funds to keep the system in shape" is to put your agency in a long line of other government services with the same statement.

The road official's responsibility

is to say and show "we need this amount of funds to provide a system that will use the least amount of our community's and country's resources while providing the greatest return." Good roads are the cornerstone of the local, regional and national economy. Road agencies do not deal with a product that is difficult to sell—everyone uses it.

The difficulty in road maintenance is not to sell the need to the public; the difficulty is in getting across the basic economic facts of how to arrive at the lowest total use of funds. The public wants road maintenance at the lowest necessary cost. The road official's responsibility is to show the public how to arrive at the lowest necessary cost. By using two of the basic performance facts about roadways, you can show the public how they can have a good level of riding comfort while paying less for maintenance (and reconstruction) and direct user costs.

The pavement performance curve shows clearly that pavement deterioration starts slowly and, for about 75 percent of pavement life a good level of service is present. At about this three-quarter point the curve falls sharply and the roadway quickly deteriorates beyond inexpensive repair.

Those who carry out low-cost rejuvenations and resurfacing before rapid deterioration begins extend the pavement life for a fraction of the cost to those who wait "just a couple of years." Until this year, the most commonly quoted cost escalation was five dollars for each dollar needed at the proper time. The latest information suggests that the cost increases 10 times. Ask why they waited and the universal answer was to "save" funds.

A waste of taxpayers' money. The taxpayer suffers this loss while enduring steadily worsening roadways.

The word responsibility has been used several times. The road agency is responsible. The engineer is responsible. Who else is there to protect the public from this waste? The engineer must persistently, clearly and credibly put forward the basic facts. The first responsibility is to bring these facts to the leaders of the road agency, then to help the leaders by addressing service and community organizations. Maybe your community has a speakers bureau. If so, approach it with your topic.

The education process should start with some basic facts on the roadway system: (a) Prepare an inventory of the existing network including cost; (b) List maintenance deficiencies; (c) Cost programmes necessary to eliminate deficiencies; (d) Provide data on excessive user costs now and in the future.

Item (d) is an area that very few people seem aware of, and even those that are instinctively aware that it cost more to drive on bad roads than on good roads have no grasp of total losses.

Real and potential losses are staggering. A community of 10,000 drivers (population 25,000) would incur a \$10,000,000 annual loss on very poor roads compared to very good roads. This typically would not happen, as roads would vary from good to very poor.

However, a survey of one jurisdiction's roads system (population 6,000,000), showed 25 percent of the roads to be in poor condition and 50 percent of the roads to be in fair to poor condition resulting in losses of over



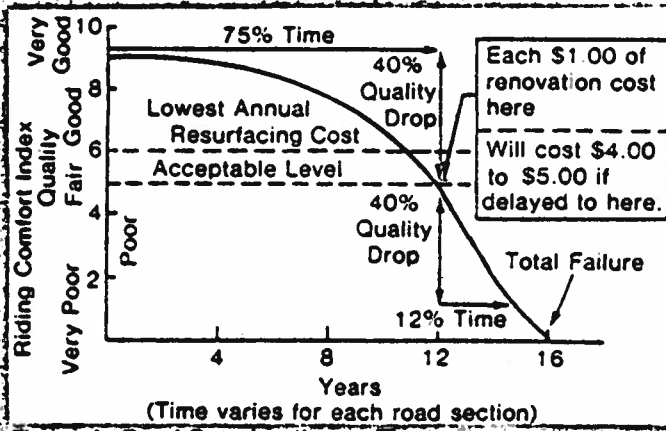


Figure A. Road Deterioration vs. Time.

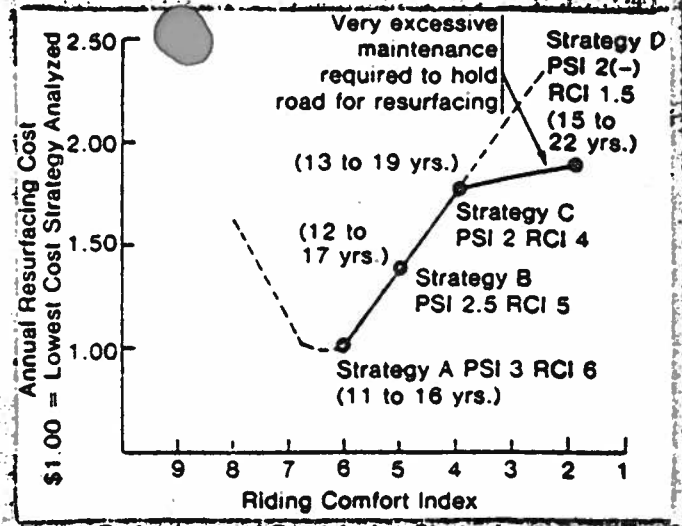


Figure B. Analyses of Resurfacing Strategies.

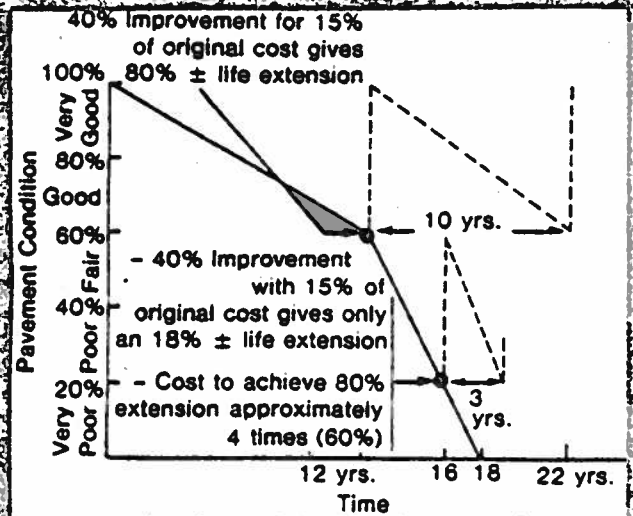


Figure C. Rehabilitation. Extension of Pavement Life vs. Time of Rehabilitation.

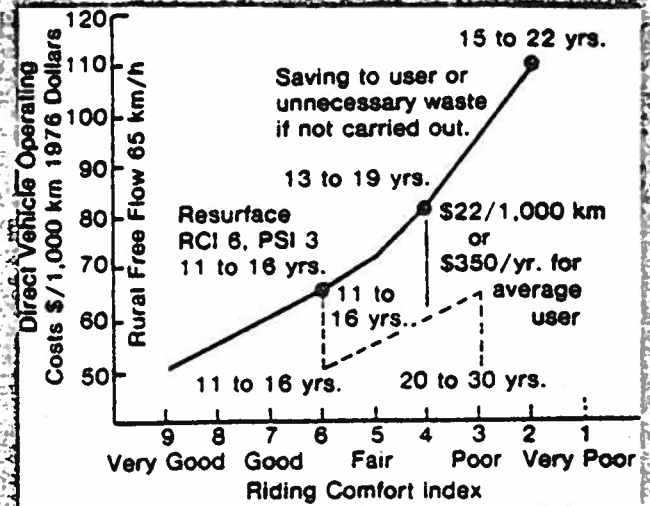


Figure D. Rehabilitation Effect On Vehicle Operating Costs.

\$500 per year to each vehicle user.

Losses are multiples of the amount of funds required to prevent them. In our example community of 25,000 this would amount to over \$5 million in excess direct operating costs. Their total public works budget would not amount to this waste of money. It is not rational to suggest the public condones wasting large amounts of funds while suffering through poor road conditions and building up the cost of their eventual upgrading.

The road-maintenance fraternity has suffered from the anti-road building atmosphere that existed for the past few years. This is unfortunate, as this effort is not connected to road maintenance and in fact should be supportive. It is not. This may require more effort from engineers to demon-

strate the need to maintain the existing road at the lowest cost. It does not remove responsibility from engineers.

The research and success of others is the best tool with which to start. In seeking to arrive at the lowest cost strategy for the annual resurfacing program, Utah DOT re-confirmed evidence from the basic performance curve. It cost less to do it on time.

When you approach your agency or community group, remember that while you seek to carry out works for the public, their experience is one of paying taxes. The public work you seek to provide is an expenditure they are forced to pay even if they are unhappy with the product.

Your emphasis should be not on the funds you need but rather on what is required to arrive at the lowest cost in total taxes and

how proper maintenance will help the citizens save direct vehicle-operating costs.

The taxpayer—more than ever before—expects to get something for dollars collected. Maintenance officials should be happy with this turn of events. They provide a product that is the life blood of their community, one that makes possible most jobs and social life.

The paradox in the present state of road maintenance is that engineers can reduce the amount of taxes that will be needed, can put money into citizens' pockets by lowering vehicle-operating costs and can do it using less of their money. This can occur if he is allowed to repair those parts of the system on time that can be repaired and if he is allowed to rectify the mistakes of the past.

*continued on page 42*



## Products *continued*

### Generator

produces 120 v ac from a car or truck battery without the engine running. Three models are available: 120 v ac at 6.5 amps; 120 v dc at 11 amps; and 120 v ac at 16 amps. A portable power source to run saws, lights, drills or electronic equipment. Weight ranges from 23 to 52 lb. The units can be mounted under the hood. All units are rated continuous duty.—Huskie Tools, Inc. 330-60007HT

write in service card No. 676

### Polyethylene Pipe

can be quick-coupled for reliable field use using standard Victaulic or equal couplers. It utilizes steel exterior stiffener with a double standard I.P.S. size rolled grooves. The stiffener is cold pressed over the polyethylene pipe which has double machined grooves. It can be used in areas of extreme temperature change and areas of significant flexing without worry of the coupling slipping loose.—Pipe Systems, Inc. 351-63026PS

write in service card No. 877

continued on page 44

### Good Roads,

*continued from page 23*

Even the most deteriorated road can be returned to a good riding comfort level for less than the direct vehicle-operating user losses incurred if the roadway is neglected.

A final note: Most direct vehicle-operating cost losses are caused by excess fuel use. It is redundant to expand on this, but use those facts in your presentation. With the pluses of lower total maintenance cost, lower vehicle-operating costs and lower fuel use, it is hard to see how you can lose if you make a persistent effect in presenting the case in a clear, credible manner.

The four graphs displayed present a simple but dramatic picture of how road transportation costs can quickly get out of hand causing huge losses.

Figure A is the basic performance curve and indicates the rapid deterioration that occurs at the three-quarter-life period. A delay of only a couple of years can cause rapid escalation in cost.

Figure B compares annual resurfacing costs and shows how (in this study) the lowest cost occurred when resurfacing was carried out before the commonly held acceptable level of road surface condition.

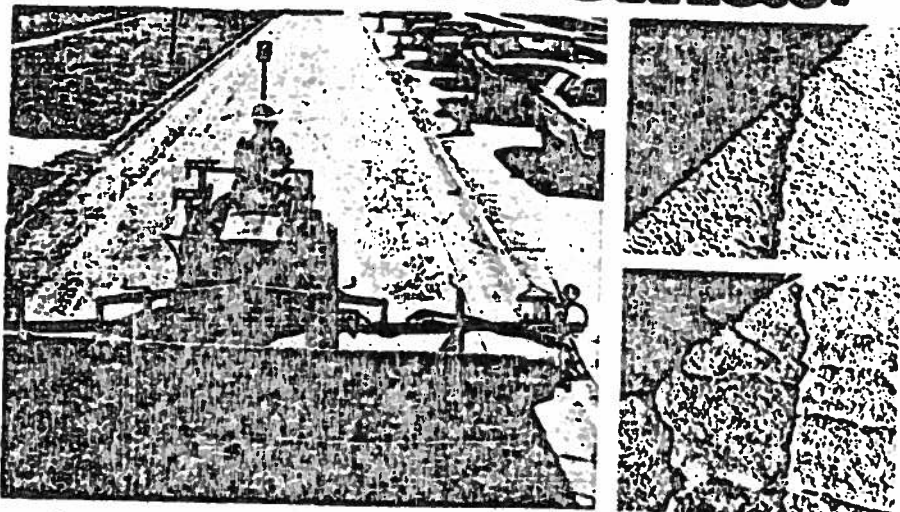
Figure C attempts to show why the same resurfacing at a lower pavement-quality level result in significantly less value. In the example, the return on the same resurfacing funds is reduced to 25 percent of the return if carried out four years earlier, or an average 100 percent escalation in cost each year, plus inflation.

Figure D (because of the fuel crisis) may be of most immediate importance to the public. It displays how direct user costs increase with deteriorating road conditions.

Dashed lines show what effect a resurfacing would have on direct operating costs vs. doing nothing.

The example shows a \$350 loss per year without resurfacing for each vehicle user. This is for the standard car—commercial vehicle losses are much higher.

# Cracks can't cut it with Petromat®



**Petromat® improves pavement resurfacing.** Petromat nonwoven fabric is easily installed between an existing road and new asphalt surfaces. Used to repair damaged roads or for preventative maintenance. Petromat increases fatigue life of the overlay and helps keep cracks from reflecting through to the new surface.

Petromat fabric, made with polypropylene fiber, resists chemical attack and will not rot. The tough fabric combines with the overlay and forms a stress relieving barrier against costly cracking.

Petromat helps stop moisture damage. Combines with asphalt to form a reinforced impervious



membrane that protects base structures from air, water and de-icer salt seepage.

Years of Petromat field installation

experience pay off for you. Our technical service crews with installation capability are available; or we'll train your crews.

Petromat works for more than roads. Airports, bridges, parking lots, and even tennis courts last longer, hold up better against cracking with Petromat under the overlay. Whatever you pave: Roll out the Petromat®... and save.

**PETROMAT®**

For more information, write or call us. Also ask about Supac® the latest word in road drainage.

NONWOVEN  FABRIC

MADE BY  
PHILLIPS FIBERS BETTER

PHILLIPS FIBERS CORPORATION A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY GREENVILLE SOUTH CAROLINA  
ENGINEERED PRODUCTS MARKETING P.O. BOX 66 GREENVILLE SC 29602 (803) 242 6400

©Phillips Fibers Corporation

For information write in service card No. 626

## INTRODUCTION

"Good Roads Cost You Less Than Bad Roads." This statement was included as part of a post office label from Australia and is becoming a well documented fact in the United States. The cost to rehabilitate, maintain and drive on good roads is considerably less than for bad roads. It has been reported that rough, rutted roads cost motorists in the United States \$9.9 billion a year in excessive operating expenses. The higher cost of driving these roads is attributed to excessive fuel consumption and vehicle wear and tear. A poor pavement surface may require approximately 25 percent more fuel for vehicles per mile of travel than good pavements. It has also been reported that a failed pavement may require overlays that are four (4) times as thick as for the same pavement that has not yet failed. Data obtained from the "1974 National Highway Need Report" indicates that: "Federal-Aid Highways in the United States are deteriorating at a rate about 50 percent faster than we are rebuilding and reconstructing them."

This Executive Summary presents highlights of an evaluation made in Utah regarding pavement condition and the costs and benefits involved in different potential strategies for future rehabilitation of the pavement surfaces. The Primary, Secondary and Urban systems were included in the evaluation but the Interstate system was not because of the potential for Federal Funds for rehabilitation. Recommendations are made for the most desirable rehabilitation strategy for the State.

## BACKGROUND

The information evaluated and presented in the report was based on years of research throughout the United States. Research covered a wide range of pavement related subjects including pavement management systems, pavement evaluation techniques, and pavement rehabilitation programs. Research studies developed the relationship between pavement condition and motor fuel consumption and showed that fuel consumption increased dramatically as the pavement condition deteriorated. Research results also

## CARSON CITY



## PERSONNEL DEPARTMENT

MEMO TO: Don W. Hataway, City Manager  
 FROM: Richard W. McIlroy, Personnel Director *Richard W. McIlroy*  
 DATE: February 2, 1981  
 SUBJECT: Motor Vehicle License Data

Don, the following is data compiled from both the Assessor's budget and a discussion held with Homer concerning the vehicle license section.

1. Direct salaries of four employees plus fringe benefits:

	\$55,094
Ret.	\$ 4,408
<u>NIC</u>	<u>\$ 1,157</u>
10% COL	\$ 6,066
<u>INS.</u>	<u>\$ 2,214</u>
TOTAL	\$68,939

2. Twenty-four percent of the Assessor's budget is geared toward the support of Motor Vehicle Licensing. The costs of this support are:

Assessor	\$6,536
Office Manager	\$4,770
<u>Secretary III</u>	<u>\$4,624</u>
TOTAL	\$15,930

3. Direct related costs of the operation also includes:

a. Building rental - 960 sq.ft. @ .75¢ per sq. foot:	\$8,640.
b. Electrical	\$ 32.
c. Other office supplies 24%	<u>\$8,023.</u>

TOTAL \$16,695.

MEMO TO: Don Hataway  
DATE: February 2, 1981  
PAGE TWO

Total cost beginning July 1, 1981 of operating the section is \$101,564.

Should the State take over the operation we will want to insure that transferring employees are allowed to retain annual and sick leave held on our books. Further, we would retain all office equipment and supplies.

RHM/ksk

cc: Homer Rodriguez

## S. C. R. 9

---



---

 SENATE CONCURRENT RESOLUTION NO. 9—COMMITTEE  
ON TRANSPORTATION

JANUARY 21, 1981

---

 Referred to Committee on Transportation

SUMMARY—Directs study of possible exemption of certain petroleum-ethanol mixtures from motor vehicle fuel tax. (BDR 98)

---

 EXPLANATION—Matter in *italics* is new; matter in brackets [ ] is material to be omitted.
 

---

SENATE CONCURRENT RESOLUTION—Directing the legislative commission to study the reasons for and against an exemption of certain petroleum-ethanol mixtures from taxes on motor vehicle fuel by the state and counties, and its anticipated financial effect.

- 1 WHEREAS, The exemption of certain mixtures of petroleum and etha-  
2 nol was proposed at the last session of the Nevada legislature; and  
3 WHEREAS, The legislature is already faced with a decrease in the  
4 amount of revenue available for the repair of highways within the State  
5 of Nevada; now, therefore, be it  
6 *Resolved by the Senate of the State of Nevada, the Assembly concur-*  
7 *ring,* That the legislative commission is hereby directed to study the rea-  
8 sons for and against such an exemption, and its anticipated financial  
9 effect; and be it further  
10 *Resolved,* That the legislative commission submit a report of its find-  
11 ings to the 62d session of the Nevada legislature.



**S. C. R. 8****SENATE CONCURRENT RESOLUTION NO. 8—COMMITTEE  
ON TRANSPORTATION**

JANUARY 21, 1981

Referred to Committee on Transportation

SUMMARY—Directs study of economic effect of using  
deteriorated highways. (BDR 100)EXPLANATION—Matter in *italics* is new; matter in brackets [ ] is material to be omitted.SENATE CONCURRENT RESOLUTION—Directing the legislative commission  
to study the cost to various users, by class, to use highways if deterioration  
occurs.

- 1       WHEREAS, The amount of revenue available for the repair of highways  
2       in the State of Nevada has declined because consumption of gasoline has  
3       decreased and the tax on gasoline is computed per gallon; and  
4       WHEREAS, The legislature is faced with a choice whether to permit the  
5       highways of the state to deteriorate or provide additional revenue from  
6       another source to maintain them; and  
7       WHEREAS, A factor appropriate to consider in making that choice is  
8       the cost which will result to users of the highways if they continue to  
9       deteriorate, so that if additional funds are to be provided from those users  
10      it can be done equitably in proportion to the benefit each class of user  
11      derives from repair of the highways; now, therefore, be it  
12      *Resolved by the Senate of the State of Nevada, the Assembly concur-*  
13      *ring,* That the legislative commission is hereby directed to study the cost  
14      to users of highways, to be determined by class, such as passenger cars,  
15      commercial haulers and local business if the highways of the state are  
16      allowed to deteriorate further; and be it further  
17      *Resolved,* That the legislative commission submit a report of its find-  
18      ings and recommendations to the 62d session of the Nevada legislature.