

MINUTES OF THE
MEETING OF THE SENATE COMMITTEE
ON TRANSPORTATION

SIXTY-FIRST SESSION
NEVADA STATE LEGISLATURE
February 12, 1981

The Senate Committee on Transportation was called to order by Chairman Richard E. Blakemore, at 2:10 p.m., Thursday, February 12, 1981, in Room 323 of the Legislative Building in Carson City, Nevada. Exhibit A is the Meeting Agenda. Exhibit B is the Attendance Roster.

COMMITTEE MEMBERS PRESENT:

Senator Richard Blakemore, Chairman
Senator William Hernstadt, Vice Chairman
Senator Joe Neal
Senator Lawrence Jacobsen
Senator Clifford E. McCorkle
Senator Wilbur Faiss
Senator James Bilbray

STAFF MEMBERS PRESENT:

Fred Welden, Senior Research Analyst
Kelly Torvik, Committee Secretary

SENATE CONCURRENT RESOLUTION NO. 7

The committee decided to table Senate Concurrent Resolution No. 7 until someone came to testify on it.

SENATE BILL NO. 51

Mr. Garth Dull from the Department of Motor Vehicles stated that this bill would be a benefit to the department and therefore the department would support it.

Senator Jacobsen asked if there was any documentation on the amount of overloads within the state. Mr. Dull said that there was such documentation and that the state had recently had problems with overloading of barite.

Senator Blakemore explained that this bill had come out of the subcommittee because testimony showed that there was a problem with overloading.

Senate Committee on Transportation
February 12, 1981

Senator Bilbray asked why unloading was not mandatory until the second offense. Chairman Blakemore explained that the subcommittee felt that on the first offense the driver should be allowed to move the load to a suitable place. He stated that most overloads occurred when there was not a scale available to weigh the load.

Senator Hernstadt questioned the term operator and who it encompassed, the driver or the entire fleet. Mr. Dull presumed that the term referred to the entire fleet but felt that it could be a problem. Senator Hernstadt felt that this should be made clear.

Mr. Daryl Capurro from the Nevada Motor Transport Association appeared in opposition to Senate Bill No. 51. He stated that current law allows an officer to demand unloading on the first load. He said that if unloading were mandatory, as in the bill, there would have to be an exception made for loads that would endanger public health and safety. If such loads were forced to dump the state could be held liable for any damage.

Senator Hernstadt asked if unloading is being required of all overweight trucks. Mr. Capurro stated that anything over five percent of the limit was being required to unload.

Senator Jacobsen pointed out that some products require special unloading equipment and unloading without such equipment could be dangerous.

Mr. Bill Goddard, Inspector, Motor Carrier Division of the Department of Motor Vehicles, stated that the Division did not have a specific stand on the bill. He did state that the Division had written policy, based on present law, which allowed an officer to require unloading on any overweight up to five percent over the limit. Any load which exceeds five percent of the limit must be unloaded unless it carries a hazardous product. In the case of hazardous products, an officer can require the truck to turn back and find a suitable place for unloading. He felt that the division was addressing the problem. He did not want to take the discretion away from the officer.

Chairman Blakemore pointed out that if the law says safe and suitable then the officer is responsible for finding a safe and suitable place. If an accident did occur then the state would be liable.

Senate Committee on Transportation
February 12, 1981

Mr. Goddard stated that the Division has enforced the overloading policy to a greater extent recently because of the deteriorating highways. He also pointed out that record keeping to determine second offenders could be difficult.

Senator Hernstadt asked if higher fines would be a deterrent. Mr. Goddard stated that higher fines were addressed in Senate Bill No. 52 and that the Division supported higher fines. He stated that unloading has acted as a deterrent.

Mr. Jerry Helms from Helms Construction and Associated General Contractors (AGC) stated that present policy is being enforced and that trucks are being forced to unload.

Senator Jacobsen asked Mr. Helms if he has every found it necessary to overload in order to finish a job or to save money. Mr. Helms said that such a situation had never occurred. Mr. Helms stated that the main problem with overloading occurs when scales are not available. Visual judgements are not always accurate and the weight of the material can change.

Joe Midmore from the California/Nevada Soft Drink Association stated that he supported the view of the Nevada Motor Transport Association on Senate Bills 51, 52, 53 and 54.

SENATE BILL NO. 52

Mr. Goddard stated that the Division supports this bill very strongly.

Chairman Blakemore pointed out that there is a problem with brackets on the second page. Mr. Goddard explained that the extra bracket on line ten should not be there and could be removed. Mr. Goddard stated that Senate Bill No. 52 brings the state into uniformity with federal law. He explained that the reason the fines have a \$25 minimum is to avoid writing small fines that do not cover administrative costs. He stated that the Division is apprehending the truck that is grossly overloaded.

Mr. Capurro felt that the bill should include a tolerance to allow for scale error. He also pointed out that snow and ice build up on trucks could add excess weight. Mr. Capurro felt that the committee should work to get a bill more similiar to the Oregon version. He stated that the Nevada Motor Transport

Senate Committee on Transportation
February 12, 1981

Association did not support overweights. Mr. Capurro suggested that the bill be amended to provide that inferior courts could not reduce, waive or suspend the fines.

Senator Hernstadt asked where the fines went. Mr. Capurro stated that the fines went to the distributive school fund.

John Madole from the Associated General Contractors (AGC) opposed the bill because it did not consider trucks which do not intentionally overload and are slightly overweight only because a scale is unavailable.

SENATE BILL NO. 53

Mr. Capurro pointed out that the bill appeared to be completely changing present law. He explained that most of the language was simply a repositioning of the present law. He said that the only major change was from 96 inches to 102 inches. Chairman Blakemore asked Fred Weldon to research the reason for the repositioning.

Mr. Capurro felt that the 102 inch allowance was a necessity for buses. He stated that passage of the bill would be an asset for trucks because it would enable them to load four foot pallets side by side and 96 inch containers which are presently repacked to fit on the trucks. This would be a savings to consumers. Mr. Capurro cited the advantages of the 102 inch buses. (See Exhibit C). He stated that these advantages also apply to trucks. Buses are presently allowed to travel through Nevada during the day by permit. With this restriction the larger buses cannot operate schedules through the state. Mr. Capurro stated that there is a provision in the bill that renders it null and void if it would deprive the state of federal funds.

Kent Goble, Government Relation, Greyhound Lines, explained that the 102 inch bus provides more comfort for passengers. He stated that Nevada is of great importance because it is a bridge state and a destination state. The five other states that currently allow the 102 inch bus by permit only all have legislation pending that would allow the 102 inch bus at all times. Mr. Goble said that they have experienced no significant drawbacks with the use of the 102 inch bus.

Senator Neal asked what routes the buses would be using in the state. Mr. Goble explained that they would use most highways leading to Reno and Las Vegas. Interstate 80, Interstate 15 and U. S. Highway 50 would also be used.

Senate Committee on Transportation
February 12, 1981

Senator Neal asked if this would decrease the damage to the highways. Mr. Capurro explained that since it would make a larger footprint on the pavement, that it would cause less damage.

Senator Hernstadt asked if current law in Nevada was interfering with interstate commerce in terms of bus travel. Mr. Goble explained that they cannot integrate the 102 inch bus with the rest of the fleet. They must be confined to a specific area.

Senator Neal asked if the 102 inch bus could carry more passengers. Mr. Goble said that it could not. It had the same seating arrangement. Chairman Blakemore pointed out that the smaller buses were simply revisions of a very old design. The 102 inch bus is a completely new design.

Mr. Dull stated that the Department of Transportation opposed Senate Bill 53. He explained that federal law prohibits the use of a 102 inch vehicles on all roads except interstate freeways. He said that the primary and secondary systems do not have large enough lanes and shoulders. He stated that current design criteria is based on a 96 inch vehicle.

Senator Hernstadt asked why the permits for the 102 inch buses were restricted to day use only. Mr. Dull stated that this restriction was for safety.

Senator Faiss asked if the turning radius was any different on the 102 inch vehicle. Mr. Dull explained that the turning radius itself does not change but the width of the vehicle influences how much pavement is needed to accommodate the wider buses.

Senator Jacobsen asked if there were any accidents attributed to the wider vehicle. Mr. Dull stated that he did not know of any. He did know of a study which states that the 102 inch bus was hazardous at nighttime and on lanes smaller than 12 feet.

Senator Herstadt felt that if the bill was approved it should be effective upon passage and approval.

Virgil Anderson from AAA stated that he had no objections to the bill if buses were the only vehicles considered. He did suggest that the committee consider safety.

Senate Committee on Transportation
February 12, 1981

Senator Jacobsen asked if there were any mobile homes constructed over 96 inches. Mr. Anderson did not believe so.

SENATE BILL NO. 54

Mr. Capurro stated that the reason for this bill was that formula B, which was adopted by the 1975 Legislature, was advantageous to the longer combination trucks. It reduced the productivity of the narrow vehicles. (See Exhibit D). He said that until 1980, when the Federal Government required the states to certify that they were enforcing their weight laws, this law was not being enforced. He explained that if the bill was passed the narrow trucks would still be limited on gross weight and would not do more damage to the highways.

Mr. Capurro explained that there would still be two controls -- weight and axle length. He stated that grandfathering the narrow vehicles in would be hard to enforce because it would be almost impossible to identify the grandfathered vehicles and the ones purchased after the legislation.

Jerry Helms stated that he had a sizable interest in the narrow trucks. He felt that it was important that they could be used in an economical way.

Senator Bilbray suggested that the trucks that have been grandfathered in be given special identification.

Mr. Helms explained that because these laws were not enforced there was no problem until 1980. Mr. Capurro stated that because there has been no enforcement the loads have not been limited. He said that this limitation would increase the price to the consumer. He also stated that there was a technical problem on page three, line 17 of the bill.

Mr. Dull stated that the Department was in opposition to the bill because it violates the principles established by the bridge formula, which also applies to pavements. He felt that passage would create more damage to the highways.

Mr. Dull stated that the federal law will not allow trucks which are loaded in accordance with Senate Bill 54 on the interstate freeways. Mr. Capurro stated that federal law only required Nevada to enforce Nevada's weight laws. Mr. Dull explained that this was not true on the interstate system. On all other systems Mr. Capurro was correct.

Senate Committee on Transportation
February 12, 1981

Mr. Madole felt that the narrow trucks should be allowed to load as much as they were designed to carry.

Tom Clifford from C. B. Construction Company pointed out that concrete mixing trucks have a problem with these limits. He stated that a mixing truck that is properly loaded at the plant may have a shift of weight while on the road and be exceeding axle weight limitations while remaining within gross weight limitations. He said that he has been cited for these over-weights.

Al Stone, Director, Department of Transportation, commented on the testimony given by Thern Sherard. (See Exhibits E and F). Mr. Stone also showed a film. (See Exhibit G). Mr. Stone then continued with testimony. (See Exhibits H, I, J and K).

Senator Bilbray asked if more trucks are driving over the roads or less cars. Mr. Stone explained that traffic as a whole has increased.

Senator Hernstadt asked if lowering the gross weight limitations would be helpful in reducing deterioration. Mr. Stone stated that he didn't feel that would be the answer.

Senator Hernstadt questioned how to tell the citizens that they would pay a larger increase than the motor transport industry. Mr. Stone explained that the motor transport industry is a non-profit industry and any large increase in their costs would be passed to the consumer regardless. He stated that better maintenance would lead to better roads which in turn would save the passenger cars over \$150 per year in maintenance costs.

SENATE BILL NO. 51 (Exhibit L)

Senator Hernstadt moved that Senate Bill No. 51 be indefinitely postponed.

Senator Bilbray seconded the motion.

The motion passed unanimously.

SENATE BILL NO. 52 (Exhibit M)

The committee decided to wait for amendment which provided for the typographical error on page two, line ten. The amendment would also provide that the fines may not be reduced, waived or suspended by the inferior courts.

Senate Committee on Transportation
February 12, 1981

SENATE BILL NO. 53 (Exhibit N)

Senator Hernstadt moved that committee amend and do pass
Senate Bill No. 53.

Senator Bilbray seconded the motion.

The motion passed unanimously.

SENATE BILL NO. 54 (Exhibit O)

Senator Neal moved that Senate Bill No. 54 be indefinitely
postponed.

Senator Bilbray seconded the motion.

The motion passed (Senators Blakemore and Jacobsen voted
"No").

There being no further business, the meeting adjourned at
4:45 p.m.

Respectfully submitted by:


Kelly R. Torvik

APPROVED:


Chairman Richard E. Blakemore

Dated: 2/18, 1981

SENATE AGENDA

COMMITTEE MEETINGS

Committee on Transportation, Room 323.

Day Thursday, Date February 12, Time 2:00

S. C. R. No. 7--Directs study of feasibility of special permits for overloaded vehicles.

S. B. No. 51--Requires unloading of overweight vehicles on second or subsequent offense for operator.

S. B. No. 52--Establishes schedule of fines for overloaded vehicles.

S. B. No. 53--Increases allowable limits on size of vehicles.

S. B. No. 54--Provides alternative weight limits for certain vehicles.

ATTENDANCE ROSTER FORM

COMMITTEE MEETINGS

SENATE COMMITTEE ON TRANSPORTATION

DATE: 2/12/81

PLEASE PRINT NAME	PLEASE PRINT ORGANIZATION & ADDRESS	PLEASE PRINT TELEPHONE
Daryl E. Capurro	NEVADA MOTOR TRANSPORT ASSN. ^{P.O. BOX 7320 - Reno, Nev. 89510}	331-6884
John W Borda	" " " "	" "
Bill MADIGAN	CARSON CITY - Public Works DEPT.	8831800
Bill Gaddard	D.M.V. Motor Carrier Div	885-5340
Kenneth L. Cox	Fed. Hwy. Admin, Carson City, NV	885-5332
Kent Golde	Greyhound Lines, 715 L St., Sacramento, Cal.	916-443-3966
Al Stone	Nevada DOT	885-5440
Garth Oull	DOT	885-5440
VIRGIL ANDERSON	AHA	882-1890
Jerry L. Helms	Helms Const. & A.G.C.	359-1720
Joe Midmore	Cal-Nev Soft Drink Assoc.	
JOHN MADOLE	ASSOC GEN. CONTR.	329-6116
William ARCOCK	C.B. CONCRETE CO. RENO NV	323-3051
Tom Clifford	C.B. Concrete Co. Reno, Nev.	329-8841
IRA LEVINE	INTERN	784-4487

JUSTIFICATION FOR PERMITTING WIDER BUSES

The intercity bus industry is seeking authorization in the several States to increase from 96 inches to 102 inches the maximum width of buses permitted to use the Interstate System and such of the State highways as authorized. The six-inch increase in maximum bus width passed by Congress in 1975 is completely permissive, that is, each State can adopt the higher limit but no State is required to do so. To date, 44 States have authorized the 102-inch width.

The intercity bus industry in the United States provides the best bus service in the world, the most economical form of transportation in the United States, and is working diligently to improve its service to the public. It is also the most energy efficient form of passenger transportation and the most flexible.

In recent years, the industry has invested millions of its own dollars in the development of a safer, more comfortable bus for the public. Wider buses have been acclaimed for their safety features, and have been well received in Canada and in those areas of the United States where their operation is permitted. We urge the legislatures to permit the use of wider, safer, and more comfortable buses over the entire Interstate Highway System and on such of the State's Highway System as meets specific requirements.

For every intercity bus on the road, there are about eleven fewer cars on the highway. Thus, to the extent that intercity bus travel is maximized, safety is enhanced and pollution is minimized. Fuel savings are enormous.

The 102-inch wide buses which we are now seeking permission to use throughout the United States have been operating successfully for over thirty years in the cities and on some highways of this country. Today all major cities in the United States are using 102-inch wide buses in transit service. During the past 12 years 102-inch wide intercity buses have been operating successfully over the Trans-Canada Highway, between Philadelphia and New York, and between Chicago and New York, using the Indiana, Ohio, Pennsylvania, and New Jersey Turnpikes, also, throughout California and Nevada. 102-inch wide intercity buses have been operated in the State of Nevada for several years, mostly in charter service from California, under special permit. Some transit buses 102" wide are operated in the Las Vegas transit system.

INCREASED SAFETY FEATURES OF 102-INCH WIDE
MC-6 SUPERCRAISER WHICH IS IN LIMITED USE TODAY

Tires - The tires on the Supercruiser are substantially wider than those on conventional buses. The tire "footprint" (the tire surface in contact with the road) is 46 percent greater. Better steering control, improved road traction, greater stability and greater skid resistance result.

Brakes - Because of the larger (wider) wheels, the effective brake drum area is 69 percent greater than with most current single-level buses. The combination of larger brakes and bigger tires increases substantially the stopping capabilities of the Supercruiser.

Suspension - The additional width makes it possible to space the suspension air bellows much farther apart for greatly increased vertical stability, improved sidewise stability and improved steering and handling. On the Supercruiser, the air bellows are placed at the far outboard points of the bus - 80 inches apart as opposed to 31½ inches on other coaches.

Inside Safety - Adding six inches to the bus width makes it possible to build it higher. This in turn brings about improvements in safety inside the bus - an entrance stepwell with a low step height and proper tread width, a wider entrance area at the top of the steps to permit easier and safer entrance to the aisle, a wider aisle and headroom raised to 78 inches to accommodate taller passengers.

Passengers and Driver Seated on a Higher Level Above Point of any Impact - For the driver, this also means better visibility and reduced accumulations of road-splash and dirt on the windshield in wet weather.

Approximately 85 percent of all bus miles traveled are now on highways having a lane width of 12 feet or more, which permits adequate distance between 102-inch wide buses and other vehicles. In effect, we have added only three inches to the width of the bus as it affects other vehicles - the other three inches being accounted for on the road-edge side of the bus not affecting other traffic. It is doubtful that the average motorist traveling behind or passing the Supercruiser would be aware that it's a wider vehicle. We believe the additional safety afforded to both passengers and driver and other motorists more than offsets the modest increase in width.

The safety record of the intercity bus industry over the years is unequalled by any other form of public transportation. Travel by bus is 15 to 20 times safer than travel by automobile.

This safety record is not an accident, but rather results from, among other things, (1) constant improvement in the design of buses and in their operation and maintenance; (2) highly skilled professional drivers who undergo frequent retraining, and (3) periodic inspection and maintenance in accordance with closely enforced federal and state regulations.

If the bus industry is to be a true public servant and viable in today's vital transportation market, it must be able to put on the road a bus that is safer and more comfortable for the traveling public.

November 7, 1980

STRESS
STRESS
ELEMENTS
ELEMENTS

DISTANCE 1ST TO LAST AXLE (5 AXLE)

(AMEND TO ALLOW 64,000 ON CONSECUTIVE
TANDEMS + 10,000 ON STEERING = 74,000 LBS)

EXHIBIT D

AXLE
25'
INTERAXLE
LOSS

	<u>38'</u>	<u>39'</u>	<u>B</u> <u>40'</u>	<u>41'</u>	<u>42'</u>
	66,300	68,000	70,000	72,000	73,280
	68,500	68,500	68,500	68,500	68,500
	+ 2,200	+ 500	- 1,500	- 3,500	- 4,780

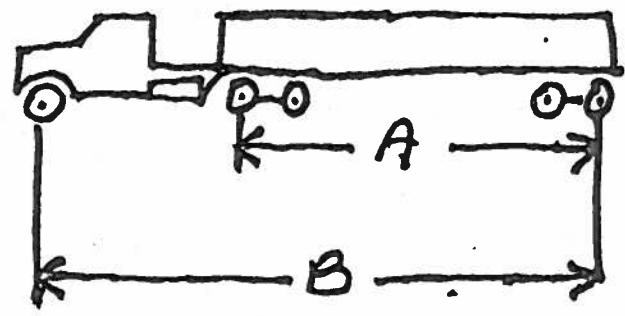
27'
STEERING
LOSS

	66,300	68,000	70,000	72,000	73,280
	70,000	70,000	70,000	70,000	70,000
	+ 3,700	+ 2,000	EVEN	- 2,000	- 3,280

29'
STEERING
LOSS

	66,300	68,000	70,000	72,000	73,280
	71,500	71,500	71,500	71,500	71,500
	+ 5,200	+ 3,500	+ 1,500	- 500	- 1,780

NOT PRACTICAL



NOTE:
STEERING AXLE COMPUTED @ 10,000 POUNDS

DISTANCE
BETWEEN
TANDEMS

DISTANCE 1ST TO LAST AXLE (5 AXLE)

B

A
TANDEMS
(25)

	43'	44'	45'	46'	47'	48'
73,280	73,280	73,280	73,280	73,280	73,280	73,280
INTERAXLE	68,500	68,500	68,500	68,500	68,500	68,500
Loss	-4,780	-4,780	-4,780	-4,780	-4,780	-4,780

27'
INTERAXLE
Loss

73,280	73,280	73,280	73,280	73,280	73,280
70,000	70,000	70,000	70,000	70,000	70,000
-3,280	-3,280	-3,280	-3,280	-3,280	-3,280

29'
INTERAXLE
Loss

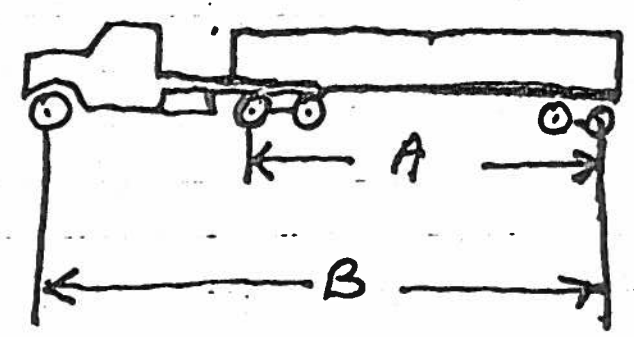
73,280	73,280	73,280	73,280	73,280	73,280
71,500	71,500	71,500	71,500	71,500	71,500
-1,780	-1,780	-1,780	-1,780	-1,780	-1,780

31'
INTERAXLE
Loss

73,280	73,280	73,280	73,280	73,280	73,280
72,500	72,500	72,500	72,500	72,500	72,500
-780	-780	-780	-780	-780	-780

33'
INTERAXLE
GAIN

73,280	73,280	73,280	73,280	73,280	73,280
74,000	74,000	74,000	74,000	74,000	74,000
+720	+720	+720	+720	+720	+720



NOTE:
STEERING AXLE COMPUTED @ 10,000 pounds 120

TESTIMONY TO THE SENATE TRANSPORTATION COMMITTEE
FEBRUARY 12, 1981

EXHIBIT E

My purpose here today is to comment on the testimony given by Mr. Therm Sherard to this committee on 2-3-81. Generally, I agree with almost everything Mr. Sherard had to say; however, I take exception on how it was presented and what was not presented.

Using the minutes of the meeting, Mr. Sherard stated that heavy trucks do not necessarily cause most of the damage. The damage that a truck causes is not related directly to gross weight. It is related to the equivalency axle weight. This is correct. If you divided a 80,000 pound truck into 20 - 4,000 pound trailers and spread them far enough apart they would cause no more damage than 20 cars, which is incidental. I can assure you that damage that a typical truck causes is related to gross weight as well as equivalent axle weight.

Mr. Sherard said that most of the damages caused to highways was due to overload. I completely disagree with this statement. Overloads are and should be a rare occurrence. The major damage comes from the repetition of legal axle loads. Mr. Capurro pointed out the Mr. Sherard's main point was that many factors go into the deterioration of highways. One thing that he noted was that Nevada's climatic condition is actually one of the worst in respect to deterioration because of the freeze/thaw cycle. I certainly agree that there are many factors that go into the deterioration of highways. I would like to emphasize that one of the major factors, in most cases, is the percentage of trucks. I disagree that Nevada's climatic conditions are actually one of the worst and this is pointed out in the regional factor that we use in pavement design in Northern Nevada. This factor is average compared to other states or locations. In the Southern part of Nevada the regional factor is well below the average of other states.

Mr. Sherard testified that it can be shown that a 20,000# single axle and a 34,000# tandem axle will not require a pavement design much different from that of a 18,000# single axle and a 32,000# tandem axle. This is true. The difference would probably be in the neighborhood of 1/2" of pavement. Of course 1/2" of pavement costs thousands of dollars per mile, but it's most significant to note in this testimony that this is a comparison of trucks to trucks, not passenger cars to trucks. It was testified that changes in the predicted number of E.A.L.'s (Equivalent Axle Loads) can result from a change in traffic volume, a change in traffic composition, a revision of vehicle axle weight limits, or a combination of all three, and however it will be emphasized again that E.A.L.'s are only one factor for influencing a road's service life. This is a true statement, but certainly E.A.L.'s are a major factor. A significant change in E.A.L.'s is almost entirely caused by a change in a percentage of trucks.

Again, when questioned about passenger cars in relation to trucks Mr. Sherard's answer compared trucks to trucks. From the table he presented in testimony. Let's look at a typical truck to passenger cars. I refer to the minutes of this testimony on page 285, entitled "Equivalence factors (18,000 pound EAL) for flexible and rigid pavements as computed from the AASHTO road test"

(Go to Handout "Rigid Pavement with 9" depth)

A point was made in the testimony that if highway facilities are properly designed and the estimate of traffic including traffic mix is correctly predicted, then trucks would have little affect on the 20-year life of a properly maintained facility. This is very true and in 1961 the Department projected a percent of trucks for Interstate 80 of 10% throughout most of its length. Had this prediction come true we would have had little problem with Interstate 80, however, our crystal

ball failed us - the percentage of trucks on I-80 today for most of its length ranges from 30-35%. This factor alone can cut the life of the facility by more than half.

But pavement is not the only part of the facility that is influenced by trucks. Almost all geometric design is influenced one way or another by trucks:

1. Intersection design is based on the turning radius of the average truck.

2. Throughout the state we have truck climbing lanes built solely for trucks. Trucks influence lane width and shoulder width.

3. Sight distance at intersections is based on the time it takes the average truck to cross the intersection.

4. The maximum profile grade or percent grade is heavily influenced by trucks.

5. Clearance at bridge structures is because of trucks.

6. Types of guardrail, both shape and strength is dictated by trucks .

7. and there are many others.

I would now like to present to you some remarks by John Hibbs, who is the Chief of Traffic Performance and Programs Division of Office of Traffic Operations-Federal Highway Administration, U. S. Department of Transportation. I present this as evidence that Al Stone is not the only person who confirms that one truck equals 9,600 vehicles, as reported in the Controller General's Report to Congress on Excessive Truck Weight.

(Show Video Tape)

In addition to the video tape, I present to the committee the transcript of the remarks made on this tape along with the charts.

In summary, I would like to point out on Page 7 and 8 that Mr. Hibbs reports that "yes" 9,600 vehicles equals one 80,000# truck as a true statement. Also, the validity of the pavement design information that was developed by AASHTO 20 years ago has been verified and those relationships are still true today.

In my testimony to the Joint Committee on Transportation on January 22nd, I attempted to make it very clear that a cost allocation to highway users' approach to any tax revenue increases would cause an economic upheaval. My approach to increase gasoline taxes, fees and licenses is now and will continue to be throughout the session, to be comparable to increases that are needed to preserve and maintain our existing transportation system and not excessive when compared to other states throughout the nation. In my testimony on Thursday, February 5th, I made reference to the second progress report of the Federal Highway Cost Allocation Study, a study that is required to be presented in final form to the U. S. Congress in 1982. This progress report has been submitted to Congress by the Department of Transportation. Testimony following mine indicated that this progress report was a slap to the incoming administration by the outgoing administration. The Chief of the professional staff responsible for this second progress report in the U. S. Department of Transportation is Anthony Kane-His telephone number is 202-426-0570. I am sure that Mr. Kane will assure this committee that this is a staff technical document not a political document. On Roman Numeral Page 14 of this document, the heavy vehicle use tax for an 80,000# vehicle is recommended to increase from \$3 per thousand pounds to \$16.20 per thousand pounds. I will leave it to this committee to determine why this report was discredited in testimony on February 5th.

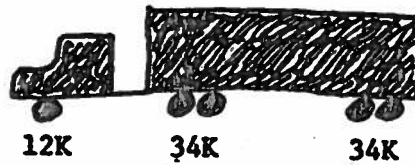
Our neighbor to the North, Idaho, who by the way has a state gasoline tax of 9½ cents and is having tremendous financial difficulty, Have gone to their legislature to ask for an increase in funds. In opposition to their request, the Idaho Transport Association has passed out a table which ranks the states using a typical 5 axle semi-trailer combination as to the amount of tax this typical vehicle pays per year. This document lists the State of Nevada as #51 in the amount of money collected each year from this typical vehicle. Although I neither have the time or money to verify each cost in each state, I would like to point out that under our present tax revenues I disagree with Nevada's ranking - and have shown this in the margin with pencil that our ranking would be #50 rather than #51. Also in pencil, I show where we would rank on this chart if our proposed revenue increases are accepted by this Legislature.

Certainly this I feel is competitive and fair to the truckers. Also I have prepared a sheet to show their proposed taxes based on a typical truck operating in the State of Nevada under the present tax structure and the proposed tax increase. These indicate a 43.9% increase per year as compared to a typical passenger with a 76.6% increase. Also, I have prepared a sheet that shows the percent of total funds contributed to the State Highway Fund by trucks over 5,000#. This shows that the percent contributed to the State Highway Fund during FY 79-80 by trucks compared to the total, which is 38.6%.

The Department's proposed increase would actually lower the percentage paid into the State Highway Fund by approximately 2%.

To sum up my testimony in one sentence, "Yes Virginia, one truck does equal 9,600 passenger cars."

Thank you.



$$9,950 \text{ passenger cars} \times 0.0002 \times 2 = \underline{\underline{3.98}} \quad \underline{\underline{18K}} \text{ EWL}$$

$$\text{Typical 5-axle Truck: } 1 \text{ Truck} \times \left[\overset{34K}{(1.95 \times 2)} + \overset{12K}{.18} \right] = \underline{\underline{3.98}} \quad \underline{\underline{18K}} \text{ EWL}$$

REMARKS BY

EXHIBIT G

JOHN O. HIBBS, CHIEF
TRAFFIC PERFORMANCE AND PROGRAMS DIVISION
OFFICE OF TRAFFIC OPERATIONS
FEDERAL HIGHWAY ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION

MEETING OF KANSAS TRANSPORTATION ENGINEERS CONFERENCE
MANHATTAN, KANSAS
MARCH 20, 1980

IT IS MY PLEASURE AND HONOR TO TAKE PART IN YOUR PROGRAM TODAY TO DISCUSS A SUBJECT OF VITAL IMPORTANCE REGARDING OUR HIGHWAY TRANSPORTATION SYSTEMS. THE SUBJECT IS TRUCK TRAFFIC AND THE RELATED EFFECTS ON BRIDGE AND PAVEMENT DESIGN.

THIS PRESENTATION WAS PREPARED AS A RESULT OF THE RECENT HEARINGS HELD ON CAPITOL HILL. REPRESENTATIVE SAM GIBBONS FROM FLORIDA CONDUCTED THESE HEARINGS AS CHAIRPERSON FOR THE OVERSIGHT SUBCOMMITTEE FOR THE HOUSE WAYS AND MEANS COMMITTEE. DURING THE TESTIMONY BY VARIOUS REPRESENTATIVES OF DIFFERENT ORGANIZATIONS, SOME QUESTIONS WERE RAISED THAT NEITHER TIME NOR OPPORTUNITY PRESENTED A CHANCE TO GIVE ANSWERS. THUS, THIS SHORT PRESENTATION WAS PREPARED TO GIVE THE CONGRESSIONAL COMMITTEE STAFFS A BETTER UNDERSTANDING OF THE SUBJECT.

ESSENTIALLY, WE HAVE TRIED TO ANSWER FIVE SPECIFIC QUESTIONS THAT WERE RAISED AT THE HEARINGS.

1. WHAT ARE THE DESIGN VEHICLES USED FOR DESIGNING BRIDGES AND PAVEMENTS?
2. IS THE AASHTO ROAD TEST DATA COMPLETED BACK IN 1960 STILL VALID?

3. IS IT TRUE THAT AN 80,000 POUND, 18-WHEELER TRUCK IS ACTUALLY EQUAL TO 9,600 AUTOMOBILES AS FAR AS PAVEMENT DESIGN IS CONCERNED?
4. ARE THE INTERSTATE ROUTES DESIGNED TO HAUL LARGE MILITARY LOADS?
5. IS IT TRUE THAT ONLY 15 PERCENT OF OUR INTERSTATE BRIDGES HAVE A RATING OF 80,000 POUNDS OR HIGHER?

BEFORE WE TALK ABOUT TRAFFIC AND HOW DESIGN VEHICLES HAVE EFFECT ON BRIDGE AND PAVEMENT DESIGNS, THERE ARE SOME OTHER FACTORS THAT HAVE GREAT INFLUENCE ON THE PROCESSES, AND A BRIEF OVERVIEW IS APPROPRIATE BEFORE WE APPROACH THE SUBJECT OF TRAFFIC. SOME OF THESE ELEMENTS ARE THE ENVIRONMENT--INCLUDING LOCAL CONDITIONS, THE WEATHER, THE DEPTH OF FROST PENETRATION, THE NUMBER OF FREEZE/THAW CYCLES, THE RAINFALL FOR THE AREA--FACTORS OF THIS NATURE. ANOTHER ELEMENT THAT ENTERS INTO THE DESIGN OF PAVEMENTS OR STRUCTURES IS THE TYPE OF MATERIALS USED IN CONSTRUCTION.

A THIRD CONDITION OR FACTOR THAT YOU SHOULD UNDERSTAND BEFORE WE START TALKING ABOUT DESIGN TRAFFIC IS THE FACT THAT PAVEMENTS ARE DESIGNED BASED ON THE PREMISE THAT THEY ARE SUPPORTED RELATIVELY UNIFORM FROM THE SUBGRADE MATERIAL BELOW, WHEREAS BRIDGES ARE DESIGNED FOR POINT SUPPORT THROUGH THE PIERS AND ABUTMENTS. ANOTHER DIFFERENCE OR FACTOR THAT SHOULD BE UNDERSTOOD IS THE TIME THAT WE DESIGN A FACILITY TO LAST, OR WHAT TIME SPAN WE EXPECT IT TO GIVE SERVICE. PAVEMENTS USUALLY ARE DESIGNED FOR 20 YEARS WHEREAS STRUCTURES CAN BE DESIGNED TO LAST ANYWHERE FROM 20 ALL THE WAY UP TO 100 YEARS. ANOTHER FUNDAMENTAL DIFFERENCE THAT YOU NEED

TO UNDERSTAND ABOUT THE TRAFFIC IS THAT PAVEMENTS ARE DESIGNED FOR LOAD REPETITIONS, WHEREAS BRIDGES ARE BASICALLY DESIGNED FOR SPECIFIC TRUCK WEIGHTS OR TRUCK LOADINGS THAT GO ACROSS THE BRIDGE. THEN BRIDGES ARE CHECKED FOR REPETITIONS OR FATIGUE IN THE SAME MANNER AS THE PRINCIPAL PROCESS FOR DESIGNING PAVEMENTS.

IF A PERSON WERE TO ANSWER THE QUESTION, WHAT IS THE DESIGN USED IN SIZING PAVEMENTS, THE ANSWER WOULD BE VIRTUALLY EVERY VEHICLE THAT WE EXPECT TO TRAVEL OVER THE PAVEMENT DURING THE DESIGN LIFE OF THE FACILITY--20 YEARS. FROM OUR PLANNING INFORMATION, WE WOULD MAKE PROJECTIONS AS TO WHAT WOULD BE THE TOTAL NUMBER OF VEHICLES EXPECTED TO USE THE ROAD. LOADOMETER STUDIES GIVE INFORMATION ON HEAVY VEHICLES SO THAT WE CAN NOT ONLY PROJECT THE NUMBER OF VEHICLES, BUT ALSO THE LOAD DISTRIBUTION OF THE DIFFERENT AXLE WEIGHTS FOR THE 20-YEAR PERIOD. FROM THIS PROJECTED PLANNING INFORMATION AND FROM DATA THAT WAS DEVELOPED AT THE AASHTO ROAD TEST COMPLETED IN 1960, WE WOULD BE ABLE TO TAKE ALL OF THESE DIFFERENT AXLE LOADINGS AND EQUATE THEM TO ONE COMMON DENOMINATOR. THE ROAD TEST WAS RUN DURING A 2-YEAR PERIOD, BASICALLY TO LEARN THE RELATIONSHIP BETWEEN THREE DIFFERENT FACTORS.

1. THE RELATIONSHIP BETWEEN DIFFERENT WEIGHT AXLES AND WHAT EFFECT THAT FACTOR HAS ON THE LIFE OF THE PAVEMENT STRUCTURE.
2. WHAT TYPE OF MATERIALS TO BUILD THE PAVEMENT STRUCTURE OUT OF AND HOW DIFFERENT ONES LAST DIFFERENT PERIODS OF TIME.

3. HOW THICK TO BUILD EACH OF THE PAVEMENTS AS RELATED TO THE NUMBER OF WEIGHT OF AXLE LOADS WHICH TRAVEL ALONG THE ROAD.

ONE OF THE KEY FINDINGS FROM THE AASHTO ROAD TEST WAS TO DEVELOP WHAT WE CALL THE EQUIVALENCY FACTOR. THAT IS A NUMBER THAT WAS DEVELOPED FROM TESTS SO THAT WE CAN RELATE REAL HEAVY AXLES TO LIGHT ONES AND CONVERT ALL AXLE WEIGHTS TO ONE COMMON DENOMINATOR CALLED THE 18,000 POUND OR 18 KIP EQUIVALENT AXLE LOAD.

I HAVE ONE BRIEF EXAMPLE TO TRY AND SHOW HOW WE MAKE TRAFFIC PROJECTIONS FOR A 20-YEAR PERIOD, COMBINE ALL AXLES TOGETHER AND COME UP WITH THE NUMBER OF LOAD REPETITIONS WE EXPECT A PAVEMENT TO UNDERGO DURING ITS LIFE SPAN. WHEN I SAY LOAD REPETITIONS, PLEASE LET ME ILLUSTRATE IT WITH A WIRE. WE DESIGN THE PAVEMENT EXPECTING THAT SO MANY MILLION AXLES WILL ROLL ACROSS IT AND CAUSE THAT PAVEMENT TO BEND, JUST LIKE BENDING A WIRE. WE TRY TO PREDICT THROUGH OUR PLANNING PROCESS, USE OF EQUIVALENCY FACTOR AND LOADOMETER INFORMATION, THE TOTAL NUMBER OF LOAD REPETITIONS. IN THIS PARTICULAR EXAMPLE, IT COMPUTES OUT THAT WE PROJECT THE PAVEMENT WILL UNDERGO 11.2 MILLION LOAD APPLICATIONS DURING THE 20 YEARS. IN OTHER WORDS, WE EXPECT THE PAVEMENT TO BEND 11.2 MILLION TIMES RELATED TO THIS EQUIVALENCY AXLE LOAD. MOST ALL OF YOUR ARE FAMILIAR WITH THE FACT THAT IF YOU BEND A WIRE JUST A SMALL AMOUNT, IT WON'T BREAK RIGHT AWAY. BUT, IF YOU KEEP BENDING IT LONG ENOUGH, EVENTUALLY THE WIRE WILL RUPTURE AND BREAK. WELL THAT SAME PRINCIPAL IS USED

IN THE DESIGN OF PAVEMENTS. IN REFERENCE TO THE EXAMPLE, WE PROJECTED THAT THE AVERAGE ANNUAL DAILY TRAFFIC FOR 1 LANE OF VEHICLES IS 8,000 WITH 15 PERCENT TRUCKS. THE 15 PERCENT TRUCKS CAN BE BROKEN DOWN INTO DIFFERENT AXLE LOADINGS. FOR EXAMPLE TO WORK IT OUT FOR PASSENGER VEHICLES--WE TAKE 85 PERCENT TIMES THE 8,000--(SUBTRACTING OUT THE 15 PERCENT TRUCKS) TIMES 2 AXLES PER VEHICLE, TIMES THIS AASHTO EQUIVALENCY FACTOR, WE FIND OUT THAT ONE GROUP OF PASSENGER VEHICLES TOTALING 7,000 IS EQUAL TO THE SAME EFFECT ON THE LIFE OF A PAVEMENT AS THREE 18,000 POUND EQUIVALENT AXLES ROLLING ACROSS AND BENDING THE PAVEMENT THREE TIMES.

GOING ON DOWN TO THE REAL HEAVY TRUCKS, BETWEEN 30-34,000 POUNDS, TIMES 8,000 VEHICLES IN THE STREAM TIMES 4.5 PERCENT OF THOSE TRUCKS TIMES THE FACTOR OF 1.5 GIVES US 540. IF WE TAKE EVERY SIZE VEHICLE AND PUT NUMBERS DOWN FOR ALL OF THOSE FOR AN AVERAGE DAY, WE COMPUTE 15,280 LOAD APPLICATIONS OF THE EQUIVALENT AXLE. TAKE THE 15,280 AND MULTIPLY IT BY 365 DAYS PER YEAR, TIMES 20 YEARS FOR THE LIFE SPAN OF THE HIGHWAY. THAT IS WHERE WE COME UP WITH 11.2 MILLION LOAD APPLICATIONS--HOW MANY TIMES YOU EXPECT A PAVEMENT TO BEND BEFORE IT BREAKS.

I HAVE SOME CROSS SECTIONS PLOTTED FOR PAVEMENTS. A CROSS SECTION IS A PICTURE OF A SLICE THROUGH THE ROADWAY PERPENDICULAR TO THE WAY THE TRAFFIC RUNS. THE FIRST SECTION HAS 6 INCHES OF SUBBASE MATERIAL WITH 9 INCHES OF PORTLAND CEMENT CONCRETE PAVEMENT OR A TOTAL OF 15 INCHES. THIS IS A FULL SECTION FOR LIGHT TRUCK TRAFFIC. IF YOU WERE TO INCREASE THE TRUCK TRAFFIC APPROXIMATELY 4 TIMES THE CROSS SECTION ELEMENT WOULD INCREASE. KEEPING THE 6 INCH SUBBASE CONSTANT WE WOULD ADD 2 INCHES TO THE THICKNESS OF THE PAVEMENT--IN OTHER WORDS,

YOU COULD INCREASE THE TRUCK LOADING 4 TIMES GOING FROM LIGHT TO HEAVY AND ONLY ADD 2 INCHES TO THE CONCRETE THICKNESS.

THE SAME TYPE COMPARISON IS PROVIDED FOR A FLEXIBLE PAVEMENT. A FLEXIBLE PAVEMENT IS ONE BUILT OUT OF BITUMINOUS MATERIAL, MADE UP OF SEVERAL INDIVIDUAL COMPONENTS. THE EXAMPLES IS FOR THE SAME LOADING ON A POOR SOIL CONDITION--POOR SOIL BEING RELATED TO ITS CHARACTERISTICS FOR PAVEMENT DESIGN. IF SOIL IS POOR FOR ROADBUILDING IT USUALLY IS GOOD FOR FARMING--RAISING CORN OR HAS A HIGH CLAY CONTENT. IN THIS CONDITION, WE HAVE 20 AND 1/2 INCHES OF TOTAL THICKNESS FOR THE LIGHT TRAFFIC ON POOR SOIL.

DROPPING ON DOWN TO THE SECTION FOR INCREASED TRUCK TRAFFIC (4 TIMES THE LIGHT TRAFFIC OR 15 MILLION REPETITIONS) AND STILL ON POOR SOIL CONDITIONS, THE TOTAL CROSS SECTION THICKNESS IS INCREASED FROM 20 AND 1/2 INCHES TO 24 INCHES. NOW LET ME INTRODUCE ONE MORE VARIABLE THAT I MENTIONED EARLIER, THE ENVIRONMENTAL FACTOR OR THE REGIONAL FACTOR FOR THE TYPE SOIL. IF YOU TOOK THE TRUCK TRAFFIC AND KEPT IT THE SAME--(THE HEAVY NUMBER OR 15 MILLION LOAD APPLICATIONS) AND PUT THIS ON A VERY GOOD SOIL FROM A HIGHWAY BUILDING VIEWPOINT (A SANDY OR A GRAVEL TYPE MATERIAL) THE 24 INCH THICKNESS WOULD DROP DOWN TO 15 AND 1/2 INCHES. SO YOU COULD SEE THE CONCRETE PAVEMENT INCREASES 2 INCHES IN THICKNESS OR HEAVY VERSUS LIGHT TRUCK TRAFFIC. FOR A FLEXIBLE DESIGN, WE WOULD INCREASE THE TOTAL THICKNESS BY ABOUT 4 INCHES FOR THE TRAFFIC INCREASE. HOWEVER, IN GOING FROM A POOR TO A GOOD GRADE OF SOIL THE DESIGN CHANGES BY ABOUT 40 PERCENT.

INFORMATION WAS PRESENTED AND QUESTIONS RAISED DURING THE HEARING ABOUT THE EQUIVALENCY OF CARS VERSUS ONE 80,000 POUND TRUCK. THE BASIS OF THESE QUESTIONS CAME FROM THE JULY 16, 1979, REPORT BY THE GENERAL ACCOUNTING OFFICE ON INVESTIGATIONS OF ACTIVITIES FOR MONITORING TRUCK SIZE AND WEIGHT ENFORCEMENT PROGRAMS. IN THIS REPORT, IT MAKES THE POINT THAT ONE 80,000 POUND TRUCK IS EQUAL TO 9,600 AUTOMOBILES. THE VALIDITY OF THIS COMPARISON WAS ASKED AT THE HEARING. ADMINISTRATOR BOWERS RESPONDED TO THE QUESTION BY SAYING "YES, THAT IS A TRUE FIGURE," FOR A RIGID TYPE PAVEMENT (CONCRETE PAVEMENT). IF YOU MADE THE SAME COMPUTATION FOR THE EQUIVALENCY PROCESS LIKE I SHOWED IN THE EXAMPLE, THE NUMBER WOULD COME OUT 5,900 FOR A FLEXIBLE PAVEMENT DESIGN. YOU NEED TO UNDERSTAND HOW THE EQUIVALENCY FACTOR EFFECTS THE DESIGN OF THE PAVEMENT AND WHAT INFLUENCE THE NUMBER OF LOAD REPETITIONS HAVE ON THE DESIGN.

ANOTHER QUESTION WAS RAISED BY THE TRUCKING INDUSTRY ABOUT THE VALIDITY OF PAVEMENT DESIGN INFORMATION THAT WAS DEVELOPED BY AASHTO AS LONG AS 20 YEARS AGO. THE STUDIES THAT WERE COMPLETED IN OTTAWA, ILLINOIS, IN 1960, RELATED TRAFFIC, THE TYPE OF MATERIAL USED IN CONSTRUCTION, AND THE THICKNESS OF THE PAVEMENT. ALSO, THE EQUIVALENCY PROCESS WAS DEVELOPED SO THAT WE CAN SUM ALL OF THE TRAFFIC INTO ONE COMMON DENOMINATOR. THE STUDY WAS COMPLETED BY ACCELERATING TESTS OVER A 2 YEAR PERIOD. WE DEVELOPED A PROCESS THAT COULD BE USED TO DESIGN PAVEMENTS FOR A 20 YEAR PERIOD.

SINCE 1960, 20 YEARS HAVE PASSED AND WE HAVE BEEN ABLE TO VERIFY THE PROCESSES THAT WERE DEVELOPED BACK THEN. SO, "YES," THE AASHTO TEST DATA ARE STILL VALID. THOSE RELATIONSHIPS THAT WERE DEVELOPED IN 1960 REMAIN VALID. THE THRUST OF WORK SINCE 1960 HAS BEEN TO REFINE REGIONAL FACTORS--THE EFFECTS OF THE WEATHER ELEMENTS, FREEZE AND THAW CYCLES, DIFFERENT TYPE SOILS. ALSO, WE ARE DOING WORK TO TRY AND BE MORE ACCURATE IN THE PREDICTION OF THE TRAFFIC.



**S I Z E
A N D
W E I G H T**

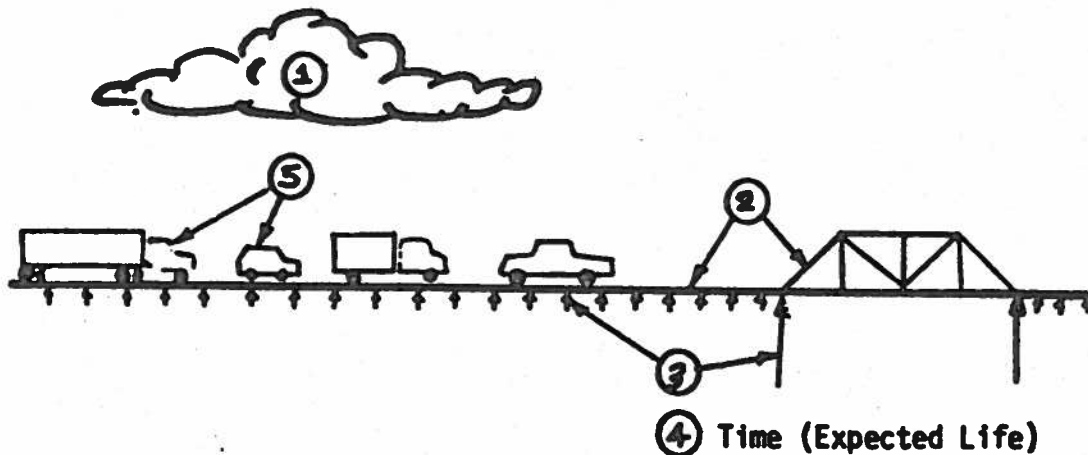
**Presentation for
Subcommittee on Oversight
House Ways and Means Committee**

August 1979

**QUESTIONS TO
BE ADDRESSED
AS FOLLOWUP TO
JULY 23, 1979 HEARING**

- 1. What size truck are bridges and pavements designed to accommodate?**
- 2. Is the AASHTO Road Test Data still valid?**
- 3. Is an 80,000 pound truck equal to 9,600 autos?**
- 4. How are Interstate routes designed to handle large military loads?**
- 5. Are only 15% of the Interstate bridges safe for 80,000 pound trucks?**

DESIGN FACTORS RELATED TO BRIDGE AND PAVEMENT DESIGN



1. Weather or environment
2. Materials for construction
3. Pavements have semi-uniform support and bridges have point support
4. Time (life expectancy)
5. Traffic (Repetitions or design load)

Pavement - Designed for Load Repetitions

Bridges - Designed for Design Truck Load and Checked for Repetitions (Fatigue)

LOAD REPETITIONS FOR PAVEMENTS

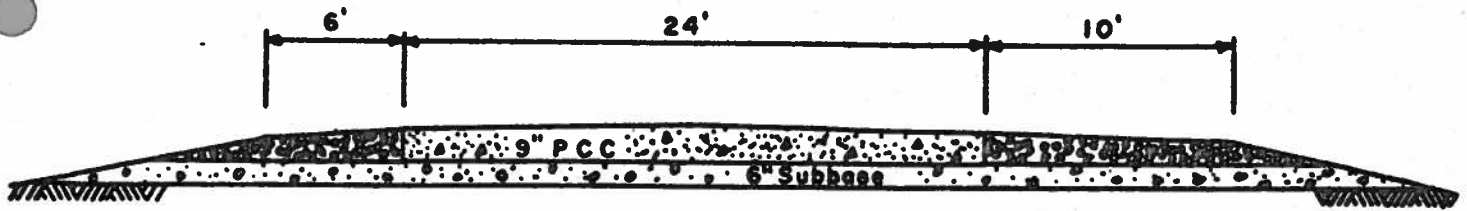
What size trucks are pavements designed to accommodate?
 No specific one size, but a combination of many converted
 to one equivalent size (18,000 pound axles).

Example:

Projected Average Annual Daily Traffic For One Lane = 8,000
 Loadometer Studies Reveal Truck Data (Axle Sizes and %)

	AASHTO Factor	
Passenger Cars	$8,000 \times 85\% \times .0002$	= 3
	:	
Single Axle	16 - 20,000# Range $8,000 \times 1.8\% \times 1.0$	= 147
	:	
Tandems	30-34,000# Range $8,000 \times 4.5\% \times 1.5$	= <u>540</u>
		1,528

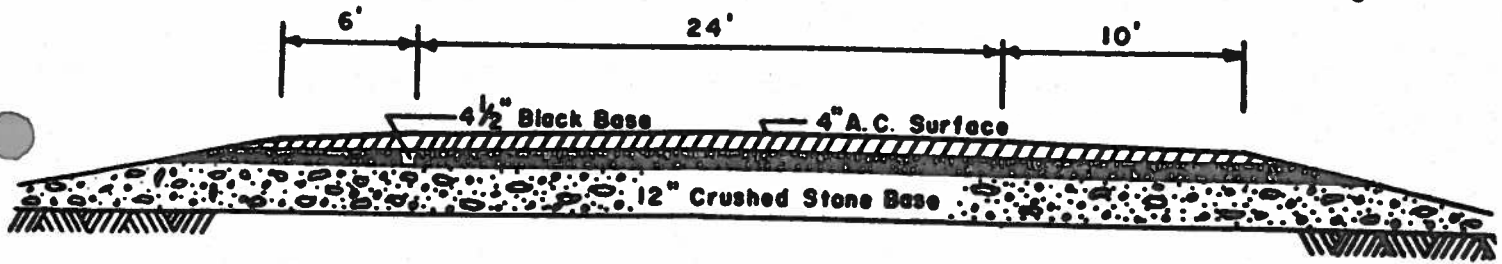
1,528 (18^k Axles) x 365 day/yr. x 20 yrs. = 11.2 million



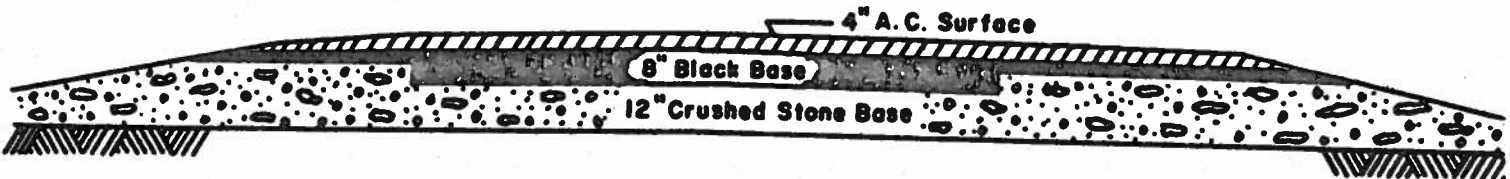
4.0 Million - 18 KIP Single Axle
Load Equivalents
(About 500 Trucks/Day)



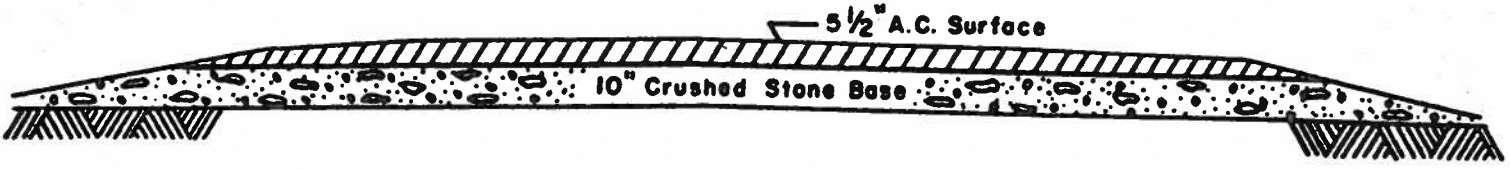
15 Million - 18 KIP Single Axle
Load Equivalents
(About 2,000 Trucks/Day)



4 Million - 18 KIP Single
Axle Load Equivalents
Poor Soil (Good Farm Soil)



15 Million - 18 KIP Single
Axle Load Equivalents
Poor Soil (Good Farm Soil)

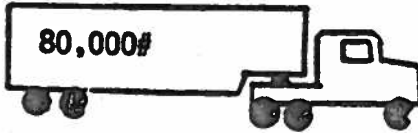


15 Million - 18 KIP Single
Axle Load Equivalents
Very Good Soil (Sandy Gravel)

RIGID PAVEMENT



= 7,500
(4,500)



= 9,600
(5,900)



AASHTO DATA STILL VALID

1960 - 2 yr. test \longrightarrow 20 yrs.

1979 - 19 yrs. verification of basic relationships.

Regional Factors Still Being Refined

User Taxes

The user taxes proposed describe a tax structure which, though based on preliminary information, is indicated by the evidence from the Highway Cost Allocation Study up to the present. While the form of the taxes and corresponding tax rates may change as additional studies are completed and public comments received, the directions and magnitudes of the recommended tax changes are the best current estimate of the likely tax structure that will ultimately result.

The recommended user taxes compared to the present taxes are as follows:

<u>Tax</u>	<u>Recommendation</u>	<u>Present Law</u>
Motor Vehicle Fuels	6c/gallon ^{1/}	4c/gallon
New Trucks and Trailers	15% of manufacturer's sale price for trucks and trailers over 26,000 lbs. GVW	10% of manufacturer's sale price for trucks and trailers over 10,000 lbs. GVW
Truck Parts and Accessories	15% of manufacturer's sale price for parts and accessories fitted to trucks	8% of manufacturer's sale price
Heavy Vehicle Use Tax	(GVW in thousand lbs.-26) x \$.30 per 1,000 lbs. of GVW ^{2/}	\$3/1,000 lbs. GVW for trucks over 26,000 lbs. GVW
Lubricating Oil	Rescind	6c/gallon
Tire, Tube, and Tread Rubber	Same as present law	9.75c/lb. for tires 10c/lb. for inner tubes 5c/lb. for tread rubber

^{1/} The 2c increase in the fuel tax credited to the Highway Trust Fund would come from the proceeds of the President's recommended 10c per gallon increase to conserve energy.

^{2/} The new formula yields the following rates for the selected vehicle gross weights listed below:

<u>GVW in pounds</u>	<u>Tax Rate per 1,000 lbs. GVW</u>
0 - 26,000	0
27,000	\$.30
40,000	\$4.20
60,000	\$10.20
80,000	\$16.20

A COMPARISON OF STATE TAXES PAID ON A TYPICAL, PRIVATE, POWERED

3-AXLE TRACTOR SEMI TRAILER COMBINATION

(Based on a 78,000 gross weight vehicle driving 70,000 miles per year, consuming 14,894 gallons of fuel, averaging 4.7 miles per gallon.)

State	Total Mile Tax	170 Registration	170 Registration Fee	170 Vehicle	Carrier Taxes	170 Registration	Fuel Tax	170 Registration	Total State Taxes	170 Vehicle
1. Arizona	\$ -		\$ 655.00	\$1,950.00	\$3,093.40		\$1,191.52		\$ 4,941.92	\$6,344.00
2. New York	1,820.00	11,641.00	562.25	10.00	-	-	2,083.16	12,660.92	4,467.41	4,335.91
3. IDAHO	2,474.50		103.80		21.00		1,414.93		4,014.23	
4. Colorado	2,897.15	7,149.00	33.00	1,007.00	-		1,042.58		3,972.73	4,307.50
5. Iowa	-		1,660.00		10.00		1,712.81		3,382.81	
6. Montana	-		952.25	2,184.42	712.34		1,638.34		3,302.93	3,115.20
7. Nebraska	-		1,250.00	2,330.93	15.00		1,980.90	2,023.30	3,245.90	4,320.51
8. S. Dakota	-		1,430.00	3,310.00	10.00	25.00	1,787.28		3,227.28	3,302.70
9. Illinois	-		1,320.00	1,422.00	19.00	119.00	1,642.87	1,117.05	3,182.87	3,210.00
10. Michigan	-		865.00	846.00	50.00		2,234.10	836.70	3,149.10	3,732.70
11. Ohio	1,400.00		671.40		30.00		1,042.58		3,143.98	
12. D/Columbia	-		699.00		-		2,427.72		3,126.72	
13. N. Mexico	1,826.30		75.00		-		1,191.52		3,092.82	
14. Mississippi	-		868.75		13.00		21,42.90		3,024.65	
15. Wisconsin	-		1,605.00		40.00		1,340.46		3,005.46	
16. Oregon	2,800.00	4,460.00	300.00	205.00	5.00		-		3,005.00	4,460.00
17. Virginia	-		944.00		3.00		1,936.22		2,883.22	
18. Kansas	-		1,350.00		10.00		1,489.40		2,849.40	
19. Washington	-	926.93	1,020.75	497.40	35.00		1,787.28		2,843.00	3,400.47
20. California	-		691.00	1,447.00	420.00		1,712.81	1,976.22	2,823.86	4,000.27
21. Minnesota	-		1,158.75		20.00		1,638.34		2,817.09	
22. Pennsylvania	-		1,116.00		-		1,638.34		2,754.34	
23. Alabama	-		801.00		-		1,787.52		2,588.52	
24. Arkansas	-		1,057.00		5.00		1,500.00		2,562.00	
25. Wyoming	2,462.64	2,877.20	60.00	960.00	15.00	10.00	-		2,337.64	3,000.70
26. Connecticut	-		878.00		10.00		1,638.34		2,526.34	
27. Kentucky	-		861.00		25.00		1,638.34		2,524.34	
28. Indiana	-		655.50		24.00		1,783.73		2,463.23	
29. Hawaii	-		403.93		133.77		1,861.73		2,421.45	
30. N. Dakota	-		1,096.00		40.00		1,191.52		2,327.52	
31. W. Virginia	-		716.00		32.63		1,562.87		2,312.50	
32. Georgia	-		703.00		5.00		1,548.98		2,261.98	
33. Tennessee	-		1,036.50		5.00		1,142.88		2,184.38	
34. S. Carolina	-		563.00		100.00		1,489.40		2,154.40	
35. Louisiana	-		946.00		10.00		1,191.52		2,147.52	
36. Maine	-		791.00		8.00		1,340.46		2,139.46	
37. N. Hampshire	-		469.00		10.00		1,638.34		2,117.34	
38. N. Carolina	-		754.00		1.00		1,340.46		2,105.46	
39. Missouri	-		1,038.50		25.00		1,000.02		2,083.52	
40. Maryland	-		639.00		-		1,340.46		1,979.46	
41. Rhode Island	-		430.00		7.00		1,489.40		1,926.40	
42. Massachusetts	-		420.00		10.00		1,489.40		1,919.40	
43. N. Jersey	-		608.50		-		1,195.52		1,804.02	
44. Utah	-		526.00	1,412.44	-		1,340.46		1,856.46	2,782.00
45. Vermont	-		1,784.33		-		-		1,784.33	
46. Texas	-		795.50		11.00		968.11		1,774.41	
47. Delaware	-		399.60		-		1,340.46		1,740.06	
48. Florida	-		473.00		108.00		1,191.52		1,772.52	
49. Oklahoma	-		731.00		5.00		988.11		1,704.11	
50. Alaska	-		230.00		55.00		1,191.52		1,476.52	
51. Nevada	-		136.00	1,132.13	3.00		693.64		1,032.64	2,228.71

Proposed
35
214
36
Present
49
1583
50

* States not having a statute allowing the maximum gross weight of 78,000 pounds, instead having a weight of 73,200 pounds.

Information source: The above noted calculations will be included in the 1981 update of the publication "Road Use & Property Taxes on Selected Motor Vehicles," developed by Federal Highway Administration in cooperation with the Department of Interstate Cooperation, American Trucking Associations, Inc.

EXHIBIT J

DEPARTMENT OF TRANSPORTATION
ESTIMATED EFFECTS OF PROPOSED TAX INCREASES

	<u>ACTUAL</u> <u>1979-80</u>	<u>PROPOSED</u>	<u>INCREASE</u>
Gasoline Taxes	\$ 21,110,716	\$ 36,076,000	\$14,965,284
Registration Fees	8,052,453	13,432,174	5,379,721
Privilege Taxes	1,056,099	1,200,000	143,901
Motor Carrier Fees	11,774,719	16,543,719	4,769,000
PSC Fees	447,687	450,000	2,313
Special Fuel Taxes	4,873,801	8,326,000	3,452,199
Penalties and Interest	<u>109,806</u>	<u>110,000</u>	<u>194</u>
	(1) <u>\$ 47,425,281</u>	<u>\$ 76,137,893</u>	<u>\$28,712,612+60.5%</u>

(2) PAID BY TRUCKS (Over 5,000 lbs.)

Gasoline Taxes (5% of Total)	\$ 1,055,000	\$ 1,803,000
Registration Fees (9% of Total)	725,000	1,208,000
Motor Carrier Fees	11,774,000	16,543,719
Special Fuel Taxes (98%)	<u>4,776,000</u>	<u>8,160,000</u>
	<u>\$ 18,330,000</u>	<u>\$27,714,719+51.2%</u>
Percent of Total	38.6%	36.4%

(1) Net to highway fund before appropriations.

(2) 80% of registered trucks weigh 5,000 lbs. or less. Of that 80%, 75% are privately owned and not engaged in commerce.

EXHIBIT K

COMPARISON OF PRESENT AND PROPOSED LICENSES AND FEES
FOR TYPICAL TRUCK/TRAILER COMBINATION
(Kenworth 10-wheel Tractor with 40 ft., dry box, Tandem Trailer)
(Tractor 16,500 lbs. Unladen, Trailer 11,500 lbs, unladen)
(Driven 90,000 mi. per year intrastate, 4.5 mi. per gallon)

	<u>Present</u>	<u>Proposed (1)</u>
State Taxes, Fees & Licenses		
Tractor:		
Registration	82.50	99.00
Mtr. Carrier Fees	342.00	451.00
Fuel Tax	<u>1,200.00</u>	<u>2,100.00</u>
Total Tractor	1,624.50	2,650.00
Trailer:		
Registration	57.50	69.00
Mtr. Carrier Fees	<u>207.00</u>	<u>-0-</u>
Total Trailer	264.50	69.00
Total For Combination	<u><u>\$1,889.00</u></u>	<u><u>\$2,719.00</u></u> +43.9%

COMPARISON OF PRESENT AND PROPOSED LICENSES
AND FEES FOR THE TYPICAL PASSENGER CAR
(Avg. Auto - 9427 miles/Yr. @ 14.29 mpg)

	<u>Present</u>	<u>Proposed (1)</u>
Registration	5.50	12.00
Fuel Tax	<u>39.58</u>	<u>67.62</u>
Total	<u><u>45.08</u></u>	<u><u>79.62</u></u> +76.6%

(1) Assumes Fuel Tax of 10.25¢ gal.

S. B. 51

SENATE BILL NO. 51—COMMITTEE ON TRANSPORTATION

JANUARY 21, 1981

Referred to Committee on Transportation

SUMMARY—Requires unloading of overweight vehicles on second or subsequent offense for operator. (BDR 43-96)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Yes.EXPLANATION—Matter in *italics* is new; matter in brackets () is material to be omitted.

AN ACT relating to overweight vehicles; requiring their unloading on a second or subsequent violation for the operator; and providing other matters properly relating thereto.

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

- 1 SECTION 1. NRS 484.755 is hereby amended to read as follows:
 2 484.755 1. *As used in this section, "operator" means the person*
 3 *who, for his own account, is paid for transporting the load and controls*
 4 *the weight of the load.*
 5 2. Authority for the enforcement of the provisions of NRS 484.745
 6 to 484.757, inclusive, [shall be] is vested in the Nevada highway patrol
 7 and in motor carrier field agents under the jurisdiction of the department
 8 of motor vehicles.
 9 [2.] 3. Any officer of the Nevada highway patrol or motor carrier
 10 field agent having reason to believe that the weight of a vehicle and load
 11 is unlawful [is authorized to] may require the driver to stop and submit
 12 to a weighing of the [same either] loaded vehicle by means of portable or
 13 stationary scales and may require that [such] the vehicle be driven to
 14 the nearest public scales, [in the event] if such scales are within 5 miles.
 15 [3.] 4. Whenever an officer or agent upon weighing a vehicle and
 16 load as provided in subsection [2] 3 determines that the weight is unlaw-
 17 ful, [such] the officer or agent may for the first violation of a limitation
 18 on weight by an operator, and shall for a second or subsequent violation,
 19 require the driver to stop in a suitable place and remove such portion of
 20 the load as may be necessary to reduce the gross weight of such vehicle
 21 to those limits permitted under NRS 484.745 to 484.757, inclusive. All
 22 materials so unloaded [shall] must be cared for by the carrier of such
 23 material and [shall be cared for] at the expense of the carrier. [The
 24 officer or agent may allow the driver of the inspected vehicle to continue

1 on his journey if any overload does not exceed by more than 5 percent the
2 limitations prescribed by NRS 484.745 to 484.757, inclusive, but the
3 penalties provided in NRS 484.757 shall be exercised for the overload
4 violation.

5 4.] 5. Any driver of a vehicle who fails or refuses to stop and sub-
6 mit the vehicle and load to a weighing, or who fails or refuses when
7 directed by an officer of the Nevada highway patrol or motor carrier field
8 agent upon a weighing of the vehicle to stop and otherwise comply with
9 the provisions of NRS 484.745 to 484.757, inclusive, [shall be] is guilty
10 of a misdemeanor.

S. B. 52

SENATE BILL NO. 52—COMMITTEE ON TRANSPORTATION

JANUARY 21, 1981

Referred to Committee on Transportation

SUMMARY—Establishes schedule of fines for overloaded vehicles. (BDR 43-97)

**FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.**

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

AN ACT relating to overweight vehicles; establishing minimum fines and enlarging the jurisdiction of the justices' courts; and providing other matters properly relating thereto.

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

1 SECTION 1. NRS 484.757 is hereby amended to read as follows:
 2 484.757 1. Every person convicted of a violation of any [weight
 3 limitation provision of] *limitation of weight imposed by NRS 484.745*
 4 *to 484.755, inclusive, [and every person, company, association or cor-*
 5 *poration, either personally or by his or its agent or employee, who is*
 6 *found guilty of violating any weight limitation of NRS 484.745 to 484-*
 7 *755, inclusive,]* shall be punished by a fine as specified in the following
 8 table:
 9

	[Pounds of		Fine
	Excess Weight		
10	2,001- 2,500	.....	\$20
11	2,501- 3,000	.....	25
12	3,001- 3,500	.....	30
13	3,501- 4,000	.....	35
14	4,001- 4,500	.....	40
15	4,501- 5,000	.....	60
16	5,001- 5,500	.....	80
17	5,501- 6,000	.....	100
18	6,001- 6,500	.....	120
19	6,501- 7,000	.....	150
20	7,001- 7,500	.....	175
21	7,501- 8,000	.....	200
22	8,001- 8,500	.....	225
23	8,501- 9,000	.....	275
24	9,001- 9,500	.....	325
25			

	[Pounds of Excess Weight	Fine
1		
2		
3	9,501-10,000	\$375
4	10,000-10,500	400
5	10,501-11,000	425
6	11,001-11,500	450
7	11,501-12,000	475
8	12,001 and over	500

9 2. The maximum fine under this section is \$500.]

	[Pounds of Excess Weight	Fine
10		
11		
12	1 to 2,500	\$25
13	2,501 to 5,000	2 cents per pound of excess weight
14	5,001 to 10,000	7 cents per pound of excess weight
15	10,001 and above	10 cents per pound of excess weight

16 2. If the resulting fine is not a whole number of dollars, the nearest whole number above the computed amount must be imposed as the fine.

17 3. The fines provided in this section are mandatory and must not be reduced under any circumstances by the court.

18 4. Any bail allowed must not be less than the appropriate fine provided for in this section.

19 SEC. 2. NRS 4.370 is hereby amended to read as follows:

20 4.370 1. Justices' courts have jurisdiction of the following actions and proceedings:

21 (a) In actions arising on contracts for the recovery of money only, if the sum claimed, exclusive of interest, does not exceed \$750.

22 (b) In actions for damages for injury to the person, or for taking, detaining or injuring personal property, or for injury to real property where no issue is raised by the verified answer of the defendant involving the title to or possession of the real property, if the damage claimed does not exceed \$750.

23 (c) [In] Except as provided in paragraph (1), in actions for a fine, penalty or forfeiture not exceeding \$750, given by statute, or the ordinance of an incorporated or unincorporated city where no issue is raised by the answer involving the legality of any tax, impost, assessment, toll or municipal fine.

24 (d) In actions upon bonds or undertakings conditioned for the payment of money, if the sum claimed does not exceed \$750, though the penalty may exceed that sum.

25 (e) In actions upon bonds or undertakings conditioned for the payment of money, if the sum claimed does not exceed \$750.

26 (f) In actions to recover the possession of personal property if the value of such property does not exceed \$750.

27 (g) To take and enter judgment on the confession of a defendant, when the amount confessed, exclusive of interest, does not exceed \$750.

28 (h) Of actions for the possession of lands and tenements where the relation of landlord and tenant exists.

29 (i) Of actions when the possession of lands and tenements has been unlawfully or fraudulently obtained or withheld, in which case the proceeding must be as prescribed by NRS upon that subject.

1 (j) Of suits for the collection of taxes, where the amount of the tax
2 sued for does not exceed \$750.

3 (k) Concurrent jurisdiction with the district courts of actions for
4 the enforcement of mechanics' liens, where the amount of the lien sought
5 to be enforced, exclusive of interest, does not exceed \$750.

6 (l) *In actions for a fine imposed for a violation of NRS 484.757.*

7 2. The jurisdiction conferred by this section does not extend to civil
8 actions in which the title of real property or mining claims or questions
9 affecting the boundaries of land are involved; and if questions of title
10 to real property are involved, cases involving such questions must be
11 disposed of as provided in NRS.

12 3. Justices' courts have jurisdiction of the following public offenses,
13 committed within the respective counties in which courts are established:

14 (a) Petit larceny.

15 (b) Assault and battery, not charged to have been committed upon a
16 public officer in the discharge of his duties, or with intent to kill.

17 (c) Breaches of the peace, riots, affrays, committing a willful injury
18 to property, and, *except as enlarged by paragraph (d)*, all misdemeanors
19 punishable by fine not exceeding \$500, or imprisonment not exceeding
20 6 months, or by both such fine and imprisonment.

21 (d) *Violation of any limitation of weight imposed by NRS 484.745 to*
22 *484.755, inclusive, without regard to the amount of the fine to be*
23 *imposed.*

24 4. Except as provided in subsections 5 and 6, in criminal cases the
25 jurisdiction of justices of the peace extends to the limits of their respec-
26 tive counties.

27 5. In the case of any arrest made by a member of the Nevada high-
28 way patrol pursuant to the duties prescribed by NRS 481.180, or by an
29 inspector or field agent of the motor carrier division of the department
30 of motor vehicles, the jurisdiction of the justices of the peace extends to
31 the limits of their respective counties and to the limits of all counties
32 which have common boundaries with their respective counties.

33 6. Each justice's court has jurisdiction of any violation of a regula-
34 tion governing vehicular traffic on an airport within the township in
35 which the court is established.

⊙

S. B. 53

SENATE BILL NO. 53—COMMITTEE ON TRANSPORTATION

JANUARY 21, 1981

Referred to Committee on Transportation

SUMMARY—Increases allowable limits on size of vehicles. (BDR 43-390)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.EXPLANATION—Matter in *italics* is new; matter in brackets () is material to be omitted.

AN ACT relating to vehicles; increasing allowable limits on size; and providing other matters properly relating thereto.

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

- 1 SECTION 1. Chapter 484 of NRS is hereby amended by adding
2 thereto the provision set forth as sections 2 to 7 inclusive, of this act.
- 3 SEC. 2. 1. *If a vehicle is carrying a load of loosely piled agricul-*
4 *tural products such as hay, straw or leguminous plants in bulk but not*
5 *crated, baled, boxed or sacked, the load of loosely piled material and*
6 *any loading racks retaining the load must not exceed 120 inches in*
7 *width.*
- 8 2. *The provisions of NRS 484.759 with respect to maximum widths*
9 *do not apply to implements of husbandry incidentally operated, trans-*
10 *ported, moved or towed over a highway. If an implement of husbandry*
11 *is transported or moved over a highway which is a part of the National*
12 *System of Interstate and Defense Highways, as described in subsection*
13 *(e) of section 103 of Title 23, U.S.C., as a load on another vehicle, if*
14 *the load exceeds 102 inches in width, the vehicle and load must not be*
15 *operated for a distance of more than 25 miles from the point of origin*
16 *of the trip and must not be operated at a speed in excess of 30 miles*
17 *per hour. If an implement of husbandry is transported or moved over*
18 *any other highway as a load on another vehicle, if the load exceeds 120*
19 *inches in width, the vehicle and load must not be operated for a distance*
20 *of more than 25 miles from the point of origin of the trip and must not*
21 *be operated at a speed in excess of 30 miles per hour.*
- 22 SEC. 3. Subject to the provisions of subsection 2 of NRS 484.759,
23 the following vehicles must not exceed a width of 120 inches:
- 24 1. Any trailer or semitrailer, including lift carriers and tipped trail-
25 ers, used exclusively for the transportation of implements of husbandry
26 by farmers or implement dealers.

1 2. *Special mobile equipment.*

2 3. *Highway construction or maintenance equipment.*

3 SEC. 4. 1. *The department of transportation may, upon application*
4 *in writing, if good cause appears, issue a special or multiple trip-limited*
5 *time permit in writing authorizing the applicant to move a trailer coach*
6 *or mobile home in excess of the maximum width, but not exceeding,*
7 *except as otherwise provided in section 5 of this act, 120 inches exclu-*
8 *sive of appendages which must not extend beyond 3 inches on either*
9 *side. The department of transportation may establish seasonal or other*
10 *time limitations within which the trailer coach or mobile home described*
11 *may be moved on the highways indicated, and may require an under-*
12 *taking or other security as may be deemed necessary to protect the*
13 *highways and bridges from injury or to provide indemnity for any injury*
14 *resulting from the operation. Permits for the movement of trailer coaches*
15 *or mobile homes as provided for in this section may be issued only to*
16 *licensed manufacturers, dealers, owners and transporters and may be*
17 *issued only under the following conditions:*

18 (a) *The power unit used to tow overwidth trailers or mobile homes*
19 *having a gross weight of 18,000 pounds or less must be a three-quarter-*
20 *ton truck or tractor, or a truck or tractor of greater power equipped with*
21 *dual wheels.*

22 (b) *The power unit used to tow an overwidth trailer coach or mobile*
23 *home having a gross weight in excess of 18,000 pounds must be a one-*
24 *and-one-half-ton, or larger, truck or tractor equipped with dual wheels.*

25 (c) *The mobile home for which the permit is issued must comply with*
26 *the provisions of NRS 484.745 relating to axle weight limitations.*

27 (d) *The insurer must furnish evidence of insurance verifying coverage*
28 *of the overwidth trailer coach or mobile home in the amounts of \$100,-*
29 *000 because of bodily injury to or death of one person in any one*
30 *accident, and subject to such a limit for one person, in the amount of*
31 *\$300,000 because of bodily injury to or death of two or more persons in*
32 *any one accident and in the amount of \$50,000 because of injury to or*
33 *destruction of property of others in any one accident.*

34 2. *A permit which has been issued for the movement of a trailer*
35 *coach or mobile home is not valid between sunset and sunrise of the*
36 *following day, nor between sunset on Friday to sunrise on Monday fol-*
37 *lowing, nor on any days declared to be legal holidays. The director of the*
38 *department of transportation may establish additional reasonable regula-*
39 *tions, consistent with this section, as he deems necessary in the interest of*
40 *public safety.*

41 SEC. 5. 1. *The department of transportation may, upon application*
42 *in writing, if good cause appears, issue a special or multiple trip-limited*
43 *time permit in writing authorizing the applicant to move a trailer coach*
44 *or mobile home in excess of 120 inches in width but not exceeding 168*
45 *inches in width, exclusive of appendages, which must not extend beyond*
46 *3 inches on either side. The movement of the trailer coach or mobile*
47 *home is, in addition to the conditions and requirements of section 4 of*
48 *this act, subject to the following requirements and conditions:*

1 (a) "Wide-load" signs and red flags must be on the front of the tow-
2 ing vehicle and on the rear of the trailer coach or mobile home.

3 (b) The towing vehicle must be a one-and-one-half-ton or larger truck
4 or tractor equipped with dual wheels.

5 (c) The applicant must present evidence satisfactory to the depart-
6 ment that he is financially responsible and that he has complied or is
7 able to comply with the equipment requirements.

8 (d) As an additional warning to approaching traffic, the towing vehicle
9 must be operated with the headlights turned on low beam.

10 (e) The driver of the towing vehicle shall do everything possible to
11 prevent the congestion or slowing down of traffic in either direction due
12 to the overwidth trailer and shall, if necessary to maintain the normal
13 flow of traffic, drive the towing vehicle and trailer coach or mobile home
14 off the pavement where safe to do so, in order that traffic may pass.

15 (f) When two or more trailer coaches or mobile homes in excess of
16 120 inches in width are moved over the same highway in the same direc-
17 tion, the drivers of the towing vehicles shall maintain a distance of at
18 least 1,000 feet between vehicles.

19 2. The department of transportation shall:

20 (a) Designate the highways over which trailers in excess of 120 inches
21 in width may be moved, and may require a pilot car to precede or fol-
22 low the load.

23 (b) Prescribe additional regulations relating to moving such trailer
24 coaches or mobile homes, including the times and days when such mov-
25 ing is permitted, and additional safety precautions to be taken.

26 SEC. 6. The department of transportation with respect to highways
27 under its jurisdiction and governing bodies of cities and counties with
28 respect to highways under their jurisdiction shall, upon application in
29 writing, issue a permit to operate, for a single trip, a vehicle, or a vehicle
30 with a load, having a width exceeding the legal maximum width but
31 not exceeding 120 inches in width on a highway between sunrise and
32 sunset on Saturdays, Sundays and holidays, unless the department or
33 governing body determines that such an operation would be a safety
34 hazard or would unduly impede the flow of traffic.

35 SEC. 7. The provisions of section 3, section 4 and subsection 2 of
36 section 2 of this act do not apply to any highway which is part of the
37 Federal-Aid Primary System, Federal-Aid Secondary System or the
38 Interstate System if their application would prevent this state from receiv-
39 ing any money for highways under section 127 of Title 23, U.S.C.

40 SEC. 8. NRS 484.759 is hereby amended to read as follows:

41 484.759 1. As used in this section, and section 3 of this act, "special
42 mobile equipment" means a vehicle, not self-propelled, not designed or
43 used primarily for the transportation of persons or property, and only
44 incidentally operated or moved over a highway, excepting implements
45 of husbandry.

46 2. The department of transportation with respect to highways under
47 its jurisdiction and governing bodies of cities and counties with respect to
48 roads under their jurisdiction may, upon application in writing, authorize
49 the applicant to operate or move a vehicle, combination of vehicles,
50 special mobile equipment, or load thereon of a size or weight exceeding

1 the legal maximum, or to use corrugations on the periphery of the mov-
2 able tracks on a traction engine or tractor, the propulsive power of which
3 is not exerted through wheels resting on the roadway but by means of a
4 flexible band or chain, or, under emergency conditions, to operate or
5 move a type of vehicle otherwise prohibited by law, upon any highway
6 under the jurisdiction of the department or governing body granting
7 [such] that permit.

8 3. Except as otherwise provided in [this section,] sections 2 to 6,
9 inclusive, of this act, the legal maximum width of any vehicle, combina-
10 tion of vehicles, special mobile equipment, or load thereon is [96] 102
11 inches.

12 4. If a vehicle is equipped with pneumatic tires, the maximum width
13 from the outside of one wheel and tire to the outside of the opposite
14 outer wheel and tire must not exceed [102] 108 inches, and the outside
15 width of the body of [such] the vehicle or the load thereon must not
16 exceed [96] 102 inches.

17 5. [If a vehicle is carrying a load of loosely piled agricultural prod-
18 ucts such as hay, straw or leguminous plants in bulk but not crated,
19 baled, boxed or sacked, the load of loosely piled material and any load-
20 ing racks retaining the load must not exceed 120 inches in width.

21 6.] Lights or devices which [are required to] must be mounted
22 upon a vehicle under this chapter may extend beyond the permissible
23 width of the vehicle to a distance not exceeding 10 inches on each side
24 of the vehicle, but the maximum width must not exceed 120 inches.

25 [7.] 6. Door handles, hinges, cable cinchers and chain binders may
26 extend 3 inches on each side, but the maximum width of body and door
27 handles, hinges, cable cinchers or chain binders must not exceed [102]
28 108 inches.

29 [8.] 7. A person shall not operate a passenger vehicle on any high-
30 way with any load carried thereon extending beyond the line of the
31 hubcaps on its left side or more than 6 inches beyond the line of the
32 hubcaps on its right side.

33 [9. The provisions of this section with respect to maximum widths
34 do not apply to implements of husbandry incidentally operated, trans-
35 ported, moved or towed over a highway. If an implement of husbandry
36 is transported or moved over a highway which is a part of the National
37 System of Interstate and Defense Highways, as described in subsection
38 (e) of section 103 of Title 23, U.S.C., as a load on another vehicle, if
39 the load exceeds 96 inches in width, the vehicle and load must not be
40 operated for a distance of more than 25 miles from the point of origin
41 of the trip and must not be operated at a speed in excess of 30 miles
42 per hour. If an implement of husbandry is transported or moved over
43 any other highway as a load on another vehicle, if the load exceeds
44 120 inches in width, the vehicle and load must not be operated for a
45 distance of more than 25 miles from the point of origin of the trip and
46 must not be operated at a speed in excess of 30 miles per hour.

47 10. Subject to the provisions of subsection 2, the following vehicles
48 must not exceed a width of 120 inches:

1 (a) Any trailer or semitrailer, including lift carriers and tipped trail-
2 ers, used exclusively for the transportation of implements of husbandry
3 by farmers or implement dealers.

4 (b) Special mobile equipment.

5 (c) Highway construction or maintenance equipment.

6 This subsection does not apply to highways which are a part of the
7 National System of Interstate and Defense Highways, as described in
8 subsection (e) of section 103 of Title 23, U.S.C., if such an application
9 would prevent this state from receiving any federal funds for highway
10 purposes.

11 11. The department of transportation may, upon application in writ-
12 ing, if good cause appears, issue a special or multiple trip-limited time
13 permit in writing authorizing the applicant to move a trailer coach or
14 mobile home in excess of the maximum width, but not exceeding, except
15 as further provided in this section, 120 inches exclusive of appendages
16 which must not extend beyond 3 inches on either side. The department
17 of transportation may establish seasonal or other time limitations within
18 which the trailer coach or mobile home described may be moved on the
19 highways indicated, and may require an undertaking or other security
20 as may be deemed necessary to protect the highways and bridges from
21 injury or to provide indemnity for any injury resulting from the opera-
22 tion. Permits for the movement of trailer coaches or mobile homes as
23 provided for in this subsection may be issued only to licensed manu-
24 facturers, dealers, owners and transporters and may be issued only
25 under the following conditions:

26 (a) The power unit used to tow overwidth trailers or mobile homes
27 having a gross weight of 18,000 pounds or less must be a three-quarter-
28 ton truck or tractor, or a truck or tractor of greater power equipped with
29 dual wheels.

30 (b) The power unit used to tow an overwidth trailer coach or mobile
31 home having a gross weight in excess of 18,000 pounds must be a one-
32 and-one-half-ton, or larger, truck or tractor equipped with dual wheels.

33 (c) The mobile home for which the permit is issued must comply with
34 the provisions of NRS 484.745 relating to axle weight limitations.

35 (d) The insurer must furnish evidence of insurance verifying coverage
36 of the overwidth trailer coach or mobile home in the amounts of \$100,-
37 000 because of bodily injury to or death of one person in any one acci-
38 dent, and subject to such a limit for one person, in the amount of
39 \$300,000 because of bodily injury to or death of two or more persons in
40 any one accident and in the amount of \$50,000 because of injury to or
41 destruction of property of others in any one accident.

42 A permit which has been issued for the movement of a trailer coach
43 or mobile home is not valid between sunset and sunrise of the following
44 day, nor between sunset on Friday to sunrise on Monday following, nor
45 on any days declared to be legal holidays. The director of the department
46 of transportation may establish additional reasonable regulations, con-
47 sistent with this section, as he deems necessary in the interest of public
48 safety.

49 To the extent that the application of this subsection to highways which
50 are a part of the National System of Interstate and Defense Highways, as

1 described in subsection (e) of section 103 of Title 23, U.S.C., would
 2 cause this state to be deprived of any federal funds for highway purposes,
 3 this subsection to such extent does not apply to highways which are a
 4 part of that system.

5 12. The department of transportation may, upon application in writ-
 6 ing, if good cause appears, issue a special or multiple trip-limited time
 7 permit in writing authorizing the applicant to move a trailer coach or
 8 mobile home in excess of 120 inches in width but not exceeding 168
 9 inches in width, exclusive of appendages, which must not extend beyond
 10 3 inches on either side. The movement of such trailer coach or mobile
 11 home is, in addition to the conditions and requirements of subsection 11,
 12 subject to the following requirements and conditions:

13 (a) "Wide-load" signs and red flags must be on the front of the towing
 14 vehicle and on the rear of the trailer coach or mobile home.

15 (b) The towing vehicle must be a one-and-one-half-ton or larger
 16 truck or tractor equipped with dual wheels.

17 (c) The department of transportation shall not issue a permit unless
 18 the applicant presents evidence satisfactory to the department that he is
 19 financially responsible and that he has complied or is able to comply with
 20 the equipment requirements.

21 (d) As an additional warning to approaching traffic, the towing vehicle
 22 must be operated with the headlights turned on low beam.

23 (e) The driver of the towing vehicle shall do everything possible to
 24 prevent the congestion or slowing down of traffic in either direction due
 25 to the overwidth trailer and shall, if necessary to maintain the normal
 26 flow of traffic, drive the towing vehicle and trailer coach or mobile home
 27 off the pavement where safe to do so, in order that traffic may pass.

28 (f) When two or more trailer coaches or mobile homes in excess of
 29 120 inches in width are moved over the same highway in the same direc-
 30 tion, the drivers of the towing vehicles shall maintain a distance of at
 31 least 1,000 feet between vehicles.

32 (g) The department of transportation shall designate the highways
 33 over which trailers in excess of 120 inches in width may be moved,
 34 and may require a pilot car to precede or follow the load.

35 (h) The department of transportation shall prescribe additional regu-
 36 lations relating to moving such trailer coaches or mobile homes, includ-
 37 ing the times and days when such moving is permitted, and additional
 38 safety precautions to be taken.

39 13. The department of transportation with respect to highways
 40 under its jurisdiction and governing bodies of cities and counties with
 41 respect to highways under their jurisdiction shall, upon application in
 42 writing, issue a permit to operate, for a single trip, a vehicle, or a vehicle
 43 with a load, having a width exceeding the legal maximum width but not
 44 exceeding 120 inches in width on a highway between sunrise and sunset
 45 on Saturdays, Sundays and holidays, unless the department or governing
 46 body determines that such an operation would be a safety hazard or
 47 would unduly impede the flow of traffic.]

48 SEC. 9. NRS 484.761 is hereby amended to read as follows:

49 484.761 The application for a permit under NRS 484.759 [shall;]
 50 and sections 2 to 6, inclusive, of this act, must:

1 1. Specifically describe the vehicle [, vehicles] or special mobile
2 equipment and load to be operated or moved and the particular high-
3 ways over which the permit to operate is requested.
4 2. State whether [such] the permit is requested for a single trip
5 [or] , for contiuous [or multiple trip-limited time operation.] use or
6 for multiple trips over a limited time.
7 SEC. 10. NRS 484.769 is hereby amended to read as follows:
8 484.769 1. It is unlawful for any person to operate or move any
9 vehicle or equipment designated in NRS 484.759 and sections 2 to 6,
10 inclusive, of this act, over any highway without first obtaining a permit,
11 or to violate or evade any of the terms or conditions of [such] the per-
12 mit when issued, and any person violating any of the provisions of NRS
13 484.759 to 484.767, inclusive, and sections 2 to 6, inclusive, of this act,
14 is guilty of a misdemeanor.
15 2. Any person operating or moving any vehicle or equipment des-
16 ignated in NRS 484.759 and sections 2 to 6, inclusive, of this act, over
17 any highway under the authorization of a permit for continuous use or
18 multiple [trip-limited time permit] trips over a limited time and who
19 violates any weight limitation in excess of the weight authorized by the
20 permit [shall] must be punished, upon conviction, as provided in NRS
21 484.757.
22 SEC. 11. NRS 484.763 is hereby repealed.

S. B. 54

SENATE BILL NO. 54—COMMITTEE ON TRANSPORTATION

JANUARY 21, 1981

Referred to Committee on Transportation

SUMMARY—Provides alternative weight limits for certain vehicles. (BDR 43-389)

**FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.**

EXPLANATION—Matter in italics is new; matter in brackets () is material to be omitted.

AN ACT relating to vehicles; providing alternative weight limits for trailers and semitrailers; and providing other matters properly relating thereto.

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

1 **SECTION 1. Chapter 484 of NRS is hereby amended by adding**
2 **thereto the provisions set forth as sections 2 and 3 of this act.**

3 **SEC. 2. 1. *The provisions of this section apply only to vehicles which***
4 ***contain a trailer or a semitrailer. Each vehicle contained in this combina-***
5 ***tion must comply with the provisions of this section or with the provi-***
6 ***sions of NRS 484.745.***

7 **2. *The maximum weight on any single axle must not exceed 18,000***
8 ***pounds.***

9 **3. *The total gross weight with load imposed on the highway by any***
10 ***group of two or more consecutive axles of a vehicle or of a combination***
11 ***of vehicles where the distance between the first and last axles of the two***
12 ***or more consecutive axles is 18 feet or less, must not exceed that given for***
13 ***the respective distances in the following table:***

14 <i>Distance in Feet</i>	<i>Allowed Load</i>
15 <i>Between First and Last</i>	<i>in Pounds on</i>
16 <i>Axles of Group</i>	<i>Group of Axles</i>
17 4.....	32,000
18 5.....	32,000
19 6.....	32,200
20 7.....	32,900
21 8.....	33,600
22 9.....	34,300
23 10.....	35,000
24 11.....	35,700
25 12.....	36,400

1	<i>Distance in Feet</i>	<i>Allowed Load</i>
2	<i>Between First and Last</i>	<i>in Pounds on</i>
3	<i>Axles of Group</i>	<i>Group of Axles</i>
4	13.....	37,100
5	14.....	43,200
6	15.....	44,000
7	16.....	44,800
8	17.....	45,600
9	18.....	46,400

10 4. *The total gross weight with load imposed on the highway by any*
11 *vehicle or combination of vehicles where the distance between the first*
12 *and last axles is more than 18 feet must not exceed that given for the*
13 *respective distances in the following table:*

14	<i>Distance</i>	<i>Allowed Load</i>
15	<i>in Feet</i>	<i>in Pounds</i>
16	19.....	47,200
17	20.....	48,000
18	21.....	48,800
19	22.....	49,600
20	23.....	50,400
21	24.....	51,200
22	25.....	55,250
23	26.....	56,100
24	27.....	56,950
25	28.....	57,800
26	29.....	58,650
27	30.....	59,500
28	31.....	60,350
29	32.....	61,200
30	33.....	62,050
31	34.....	62,900
32	35.....	63,750
33	36.....	64,600
34	37.....	65,450
35	38.....	66,300
36	39.....	68,000
37	40.....	70,000
38	41.....	72,000
39	42.....	73,280
40	43.....	73,280
41	44.....	73,280
42	45.....	73,280
43	46.....	73,280
44	47.....	73,280
45	48.....	73,280
46	49.....	73,280
47	50.....	73,280
48	51.....	73,280
49	52.....	73,600

Distance in Feet	Allowed Load in Pounds
53.....	74,400
54.....	75,200
55.....	76,000
56 or over.....	76,800

1
2
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7 **SEC. 3. 1. The provisions of NRS 484.745, and section 2 of this**
8 **act, do not apply to any highway which is a part of the Federal-aid**
9 **Primary System, Federal-aid Urban System, Federal-aid Secondary Sys-**
10 **tem or Interstate System if their application would prevent this state**
11 **from receiving any federal funds for highway purposes under section 127**
12 **of Title 23, U.S.C.**

13
14 **2. The department of transportation, with respect to highways under**
15 **its jurisdiction, and the governing bodies of cities and counties, with**
16 **respect to roads and streets under their jurisdiction, after determining**
17 **that use by vehicles otherwise conforming with the maximum weight**
18 **limits prescribed in this section, or section 2 of this act, is likely to cause**
19 **substantial stress to any highway, road, street or portion or structure**
20 **thereof, may, by proper notice, fix a reduced maximum weight limit for**
21 **vehicles which may pass over any such highway, road, street or portion**
22 **or structure thereof.**

23 **SEC. 4. NRS 484.745 is hereby amended to read as follows:**
24 **484.745 Except as provided in NRS 484.753, and section 2 of this**
25 **act, no vehicle may be operated or moved upon any public highway,**
26 **except upon the following conditions:**

27 **1. The maximum weight on any single axle must not exceed 20,000**
28 **pounds.**

29 **2. The maximum weight on any tandem axle must not exceed 34,000**
30 **pounds.**

31 **3. Except as provided in subsection 4, the maximum overall gross**
32 **weight on any group of two or more consecutive axles must not exceed**
33 **the values set forth in the following formula: $W = 500 [LN / (N-1) +$**
34 **$12N + 36]$ wherein:**

35 **(a) W equals the maximum load in pounds carried on any group of**
36 **two or more consecutive axles;**

37 **(b) L equals the distance in feet between the extremes of any group of**
38 **two or more consecutive axles; and**

39 **(c) N equals the number of axles in the group under consideration.**

40 **4. Two consecutive sets of tandem axles may carry a gross load of**
41 **34,000 pounds each if the distance between the first and last axles of**
42 **such consecutive sets of axles is 36 feet or more.**

43 **5. For the purpose of this section "tandem axle" means any two or**
44 **more consecutive axles whose centers are more than 40 inches but not**
45 **more than 96 inches apart and are individually attached to or articulated**
46 **from a common attachment to the vehicle including a connecting mecha-**
47 **nism designed to equalize the load between axles.**

48 **[6. The provisions of this section do not apply to any highway**
49 **which is a part of the Federal-aid Primary System, Federal-aid Urban**
System, Federal-aid Secondary System or Interstate System if such

1 application would prevent this state from receiving any federal funds
2 for highway purposes under section 127 of Title 23, U.S.C.

3 7. The department of transportation, with respect to highways under
4 its jurisdiction, and the governing bodies of cities and counties, with
5 respect to roads and streets under their jurisdiction, after determining
6 that use by vehicles otherwise conforming with the maximum weight
7 limits prescribed in this section is likely to cause substantial distress to
8 any highway, road, street or portion or structure thereof, may, by proper
9 notice, fix a reduced maximum weight limit for vehicles which may pass
10 over any such highway, road, street or portion or structure thereof.]

11 SEC. 5. NRS 484.755 is hereby amended to read as follows:

12 484.755 1. Authority for the enforcement of the provisions of NRS
13 484.745 to 484.757, inclusive, [shall be] and section 2 of this act, is
14 vested in the Nevada highway patrol and in motor carrier field agents
15 under the jurisdiction of the department of motor vehicles.

16 2. Any officer of the Nevada highway patrol or motor carrier field
17 agent having reason to believe that the weight of a vehicle and load is
18 unlawful [is authorized to] may require the driver to stop and submit
19 to a weighing of the same either by means of portable or stationary scales
20 and may require that such vehicle be driven to the nearest public scales,
21 [in the event such scales] if they are within 5 miles.

22 3. Whenever an officer or agent upon weighing a vehicle and load
23 as provided in subsection 2 determines that the weight is unlawful, [such
24 officer or agent] he may require the driver to stop in a suitable place and
25 remove such portion of the load as may be necessary to reduce the gross
26 weight of [such] the vehicle to those limits permitted under NRS 484.-
27 745 to 484.757, inclusive [.] , and section 2 of this act. All materials so
28 unloaded [shall] must be cared for by the carrier of [such] the material
29 and [shall be cared for at the expense of the carrier.] at his expense. The
30 officer or agent may allow the driver of the inspected vehicle to continue
31 on his journey if any overload does not exceed by more than 5 percent
32 the limitations prescribed by NRS 484.745 to 484.757, inclusive, and
33 section 2 of this act, but the penalties provided in NRS 484.757 [shall be
34 exercised] must be imposed for the overload violation.

35 4. Any driver of a vehicle who fails or refuses to stop and submit
36 the vehicle and load to a weighing, or who fails or refuses when directed
37 by an officer of the Nevada highway patrol or motor carrier field agent
38 upon a weighing of the vehicle to stop and otherwise comply with the
39 provisions of NRS 484.745 to 484.757, inclusive, [shall be] and section
40 2 of this act, is guilty of a misdemeanor.

41 SEC. 6. NRS 484.757 is hereby amended to read as follows:

42 484.757 1. Every person convicted of a violation of any weight
43 limitation provision of NRS 484.745 to 484. 755, inclusive, and section
44 2 of this act, and every person, company, association or corporation,
45 either personally or by his or its agent or employee, who is found guilty
46 of violating any weight limitation of NRS 484.745 to 484.755, inclusive,
47 [shall] and section 2 of this act, must be punished by a fine as specified
48 in the following table:

	Pounds of Excess Weight	Fine
1		
2		
3	2,001- 2,500	\$20
4	2,501- 3,000	25
5	3,001- 3,500	30
6	3,501- 4,000	35
7	4,001- 4,500	40
8	4,501- 5,000	60
9	5,001- 5,500	80
10	5,501- 6,000	100
11	6,001- 6,500	120
12	6,501- 7,000	150
13	7,001- 7,500	175
14	7,501- 8,000	200
15	8,001- 8,500	225
16	8,501- 9,000	275
17	9,001- 9,500	325
18	9,501-10,000	375
19	10,001-10,500	400
20	10,501-11,000	425
21	11,001-11,500	450
22	11,501-12,000	475
23	12,001 and over	500

- 24 2. The maximum fine under this section is \$500.
- 25 3. The fines provided in this section are mandatory and must not
- 26 be reduced under any circumstances by the court.
- 27 4. Any bail allowed must not be less than the appropriate fine pro-
- 28 vided for in this section.

