

# MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION

SFN 2053 (2/85) 5M



ROLL NUMBER

DESCRIPTION

1245

2005 HOUSE TRANSPORTATION

HB 1245

## 2005 HOUSE STANDING COMMITTEE MINUTES

### BILL NO. HB 1245

#### House Transportation Committee

☐ Conference Committee

Hearing Date January 27, 2005

Tape Number	Side A	Side B	Meter #
1	X		9.9-37.3
2	X		21.3-34.1

Committee Clerk Signature



Minutes:

**Vice Chairman Hawken:** opened the hearing on HB 1245 A Bill for an Act to amend and reenact sections 39-12-01 and 39-12-03 of the North Dakota relating to weight limitations.

**Rep. Weisz:**(10.2) What HB 1245 does it says political subdivisions, for the purposes of weight restrictions, will need to use axle weight as the limiting factor for weight restriction instead of gross vehicle weight. The reason for this is a fairness issue. Currently you can have roads that are posted for 80,000 pounds so on a state highway a 5 axle rig is legal for hauling 80,000 pounds. Because of the cost that most truckers are running into you will see six and seven axles to increase their load limit eligibility so they can haul 92,000-105,500 pounds on our state highways. But these same rigs that are legal then get to the county roads they are limited to 80,000. They are carrying allot less per axle, but yet they are still limited. Unfortunately, we have abandoned almost 2,000 miles of railroad in the last twenty some years. We have then shifted to the roads and we are asking that all that strain be taken by our roads. It puts a concern

on township and county roads. We are saying that for that two or five miles of roads you have to run light? Even though your neighbor can run a smaller rig and run heavier than you can. So this bill attempts to address that issue and make it a fair issue. Then that seven axle truck runs down the county and he is not legal, yet your farm truck is? That does not seem right. I know that there are concerns in the counties of moving the axle weight to 105,500 and I understand that. But I would hope this committee would give this a fair and valid look. Unfortunately, I had anticipated having someone here to testify on this bill that could not be here today.

**Vice Chairman Hawken** There were no questions. Are there others to testify in favor of HB 1245?

**Mark Doughty Membership Services for the Agency of North Dakota:**(13.3) I represent our general contractors in ND. We are in support of this bill. This is something we deal with also with our hauling material with highway jobs out of pits in the area. We would love to see it be on the axle basis. Less damage to the road and have more axle distribution. With less weight per axle we can certainly haul more product thereby making fewer trips.

**Vice Chairman Hawken:** Anyone else in support of HB 1245. Anyone in opposition of HB 1245?

**Charles Morman:** (14.9) Morton County Administrator. It would put an additional cost on us to sign our roads for that weight change. ( See attached testimony) Concerned about the additional signing cost. The County is responsible for every road in the county because they have only one organized township.

**Vice Chairman Hawken:** What is your feeling about what Mr. Doughty said about the number of trips. Would that make a difference? There is an assumption out there as farmers get less

there is less traffic. The opposite is happening. We are getting more, larger traffic as the farmers and ranchers are being spread out they are having to travel much farther to haul their products and the products they produce. So our axle numbers are actually increasing in Morton County. I think it would actually have a negative affect. Our roads are deteriorating at a much fast rate now than they ever have before? Studies vary on the reasons why.

**Rep. Ruby (19.7)** Have you considered lowering the weight limits on the smaller trucks that have less axles that are actually carrying heavier loads?

**Charles Morman:** It is not a real popular thing in the local areas. First I think it should be spelled out more so the people know that, but we do not do that. We have some roads that can handle that and some roads that can not. To sign all the roads coming off the highways to the county roads would be allot of money for signing. We have 1600 miles of road.

**Rep. Thorpe** How many signs did you say this would affect?

**Charles Morman:** I would say about 200-300 minimum. That could vary when you get off the highway at \$200-\$225 per sign. That is for labor and materials to put it out there.

**Rep. Weisz (21.9)** I do know with being on a county board that the increase in traffic has been a real problem. There is allot more truck traffic so one of the issues; when you do have a flat limit, you have those cement trucks and they can run 20,000 on an axle so they are legal on the county roads. They are not legal on the state highways. They can do allot of damage as well as farm trucks. How do you address that? I understand the political issues since I have been there.

**Charles Morman:** One of the greatest offenders if the garbage trucks. The shoulder of the road is where we see allot of our damage.

**Vice Chairman Hawken:** Other questions. Others here in opposition for HB 1245?

**Jon Mill, Burleigh County Engineer:**(23.9) I am also speaking for the Association of County Engineers because this is a concern for all of us. Not sure where this bill is coming from? Not sure what the intent is here? We already post our roads by axle weight so that is not a problem. If the intent is to increase the amount of the total load, then we have a problem with this. We can't keep up with the 80,000 pounds the way it is. Everything is getting bigger. The farm equipment is bigger and heavier. Load limits cause more damage on our roads. The counties can not keep up with this cost. Gravel is cheaper to fix. Pavement is hard to keep up with. If it is just a matter of changing the signing and staying with the our maximum 80,000 we have no problem with that. If it is a matter of mandating that the gross is higher, now we would have additional costs for signing. We certainly don't want to see that, but we would do it. That is certainly allot less cost than the results of the overload. There would be a fiscal note on this also because if the maximum load is increased it will mean more damage to the road and more costs and how much is very difficult to say. The agency might not have the problem they might not have. Usually there is special provisions made out in the country for excess loads. It is done under controlled situations. Right now every contractor I work with ends up hauling everything they want to. No one really mentioned bridges. We have a real problem with bridges and all we are doing is signing them for weight and width. We just can't replace them so we just sign them for liability purposes.

**Rep. Ruby** You mentioned signing issues and it will bring down trucks within the limits and that would be better.

**Charles Morman:**(30.9) We do set our load limits in Burleigh County by axle. Enforcement is the issue. They do violate axle load limit now.

**Rep. Weisz:** The reality is if the county sets the load limit of 40 ton they are not setting a per axle. No matter how I load my tandem I am legal on that road because it is impossible to exceed 80,000 pounds. Don't we have to look at what we are running today? 60% of our vehicles are all combination axles that exceed legal 80,000 pounds. They are hauling less per axle than other trucks that are hauling excessive per axle.

**Charles Morman:** (32.9) I am glad you brought this point up. There is a long running serious difference in philosophy or opinion among road experts about what does damage to the road? Is it the total unit or per axle? You can find engineers on both sides of the argument. I think it is a total load that has more affect on the roads. Particularly the asphalt roads; which is a plastic.

**Rep. Meyer** Doesn't that lead into the argument that Rep. Weisz makes that if you would go to this it could save up to 200 trips.

**Charles Morman:** Again it gets into the argument, which is the worse damage? A little bit of damage many times or a whole bunch of damage one time. I don't know if there is a clear answer.

Hearing Closed (37.3)

**Tape 2 Side A (21.4)**

**Chairman Weisz** Everyone should have gotten an amendment. The amendment is in reality there is this main issue that the counties are opposed to this. This does allow, if your legal per axle to go up to 105,500 on county highways. The current bill would still limit to 80,000, but would just require that they have their restrict per axle, they can go beyond 80.

**Rep. Thorpe**(22.3) Should there not have been a fiscal note on that?

**Chairman Weisz** No cost to the state. If there was one it probably would say undeterminable because they don't have to do anything.

**Rep. Ruby(22.8)** They want to limit the weight to a certain amount, but the big issue should be the axle weight. They are allowing trucks that have up to 6,7,8 axles at 80,000 and they probably got a tandem that's overweight. One axle is probably way over weight even though they are under the 80,000. They say this is going to increase weight limits on their roads and I don't think it necessarily will if they are still interested in keeping the weight per axle; what they are allowing in those big semi's apply to the smaller trucks; they are basically going to lower the weight allowable on those smaller trucks on the axles anyway. They say it was an enforcement issue? Isn't it always. I know they have to change their signs, but it won't be more weight on the road. You can't look at it as a broad issue; you almost have to talk about specific roads. Certain roads are going to have different weights on it and they can pretty much make the determination by road which weight they should allow per axle.

**Chairman Weisz** I understand in the townships; you have the politics. It is easy to go after the commercial truckers, but no one has the guts to go after the farmer or others locals, like cement trucks are running way over axle, but they are legal on the counties. It is allot easier if you can identify the half dozen or so that you know are running on the commercial end there is where you maybe addressing enforcement. I understand the situation, because county commissioners are local.

**Rep. Ruby(25.0)** I wish the whole state was on one format. Counties are looking at the gross vehicle.



**Rep. Hawken**(25.5) You load up your corn, wheat or whatever and you are going to take it to sell it; and you get to a county road. What do you do?

**Chairman Weisz** Break the law? That is the problem is having to run light on those 5 miles of county roads. Now they have to run 300 miles light. That is what we are trying to fix. We got rid of older rail so we are asking these guys to haul to all these sub terminals and they are legal on every state highway. What they do, and everyone does it, they load up and they try to run that 5-10 miles of county roads without getting caught. That is the reality of what is happening.

**Rep. Ruby** (27.) That is the frustration that there is a single axle grain truck that runs by and he has 30,000 on the back axle and he is 10,000 over and he is legal, because we are looking at gross vehicle weight.

**Rep. Thorpe** (27.5) I did just a little calculation with the gentleman from Morton County, if there was 400 signs at \$250 that is \$100,000 so it is a fiscal.

**Chairman Weisz** (27.8) They now sign every spring. They restrict all vehicles in the spring so this bill doesn't change that. This bill does not change that. There is no basis for saying they will have to do extra signing than they already do. They are going to restrict overage in the spring like they do now.

Motion Made By Rep. Hawked Seconded By Rep. Ruby

Voice vote carried. No opposition.

**Chairman Weisz** We have an amended motion on front of us.

**Rep. Schmidt** You understand I have to resist the whole bill because in my area we have Devils Lake. Every township and county road is wrecked.

**Rep. Weiler** (29.4) How does it affect cities?

**Chairman Weisz** It does apply to political subdivisions. The city does have the right to set weight restrictions, but this won't stop, but it will again make sure we can have 105,500 coming in, which I think is an important thing.

**Rep. Meyer** Just for clarification to me. You amendment takes of the per axle weight or leaves it on?

**Chairman Weisz** (30.5) The amendment makes the weight 105,500 so the maximum limit is moved is 105,500, but it just takes the weight of the axle per axle.

**Rep. Vigesaa** (31.1) How would this affect this guy who has been running his single or tandem axle way overweight? How much of an affect will this have on him?

**Chairman Weisz** He'll get around it anyway. Just like they do now. Does depend on the county. If they have any problems they now have tools to go after them, if the county is so inclined.

**Motion Made by Rep. Ruby      Seconded by Rep. Iverson**

**Do Pass As Amended   10   Yes   5   No   0   Absent      Carrier: Rep. Hawken**

**(34.1)**

January 27, 2005

**PROPOSED AMENDMENTS FOR HOUSE BILL NO. 1245**

Page 1, line 1, after "39-12-03" insert "and subsection 2 of section 39-12-05.3"

Page 2, after line 5, insert:

**"SECTION 2. AMENDMENT.** Subsection 2 of section 39-12-05.3 of the North Dakota Century Code is amended and reenacted as follows:

2. Subject to the limitations imposed by subsection 1 on tires, wheel, and axle loads, a person may not operate on a highway that is not part of the interstate system any vehicle the gross weight of which exceeds that determined by the formula of:

$$W = 500 (LN + 12N + 36) N^{-1}$$

where W equals the maximum gross weight in pounds on any vehicle or combination of vehicles; L equals distance in feet between the two extreme axles of any vehicle or combination of vehicles; and N equals the number of axles of any vehicle or combination of vehicles under consideration. The gross weight on state highways may not exceed one hundred five thousand five hundred pounds [47854.00 kilograms] unless otherwise posted and on all other highways the gross weight may not exceed eighty thousand pounds [36287.39 kilograms] unless designated by local authorities for highways under their jurisdiction for gross weights not to exceed one hundred five thousand five hundred pounds [47854.00 kilograms]. Local authorities are encouraged to assess all roads under their jurisdiction and designate the roads for the appropriate weight limits allowed under this subsection."

VK  
1/27/05

HOUSE AMENDMENTS TO HOUSE BILL NO. 1245 TRANS 1-27-05

Page 1, line 1, after "39-12-03" insert "and subsection 2 of section 39-12-05.3"

HOUSE AMENDMENTS TO HB 1245 TRANS 1-27-05

Page 2, after line 5, insert:

**"SECTION 3. AMENDMENT.** Subsection 2 of section 39-12-05.3 of the North Dakota Century Code is amended and reenacted as follows:

2. Subject to the limitations imposed by subsection 1 on tires, wheel, and axle loads, a person may not operate on a highway that is not part of the interstate system any vehicle the gross weight of which exceeds that determined by the formula of:

$$W = 500 \left( \frac{LN}{N-1} + 12N + 36 \right)$$

where W equals the maximum gross weight in pounds on any vehicle or combination of vehicles; L equals distance in feet between the two extreme axles of any vehicle or combination of vehicles; and N equals the number of axles of any vehicle or combination of vehicles under consideration. The gross weight on state highways may not exceed one hundred five thousand five hundred pounds [47854.00 kilograms] unless otherwise posted and on all other highways the gross weight may not exceed eighty thousand pounds [36287.30 kilograms] unless designated by local authorities for highways under their jurisdiction for gross weights not to exceed one hundred five thousand five hundred pounds [47854.00 kilograms]. Local authorities are encouraged to assess all roads under their jurisdiction and designate the roads for the appropriate weight limits allowed under this subsection."

Renumber accordingly

Date: 1-27-05  
Roll Call Vote #:

2005 HOUSE STANDING COMMITTEE ROLL CALL VOTES  
BILL/RESOLUTION NO. 1245

House Transportation Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number

Action Taken *Do Pass As Amended*

Motion Made By *Rep Ruby* Seconded By *Rep Iverson*

Representatives	Yes	No	Representatives	Yes	No
Rep. Weisz - Chairman	✓		Rep. Delmore		✓
Rep. Hawken - Vice Chair.	✓		Rep. Meyer	✓	
Rep. Bernstein	✓		Rep. Schmidt		✓
Rep. Dosch		✓	Rep. Thorpe		✓
Rep. Iverson	✓				
Rep. Kelsch		✓			
Rep. Owens	✓				
Rep. Price	✓				
Rep. Ruby	✓				
Rep. Vigasaa	✓				
Rep. Weiler	✓				

Total (Yes) 10 No 5

Absent 0

Floor Assignment *Rep Hawkins*

If the vote is on an amendment, briefly indicate intent:

**REPORT OF STANDING COMMITTEE**

HB 1245: Transportation Committee (Rep. Weisz, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (10 YEAS, 5 NAYS, 0 ABSENT AND NOT VOTING). HB 1245 was placed on the Sixth order on the calendar.

Page 1, line 1, after "39-12-03" insert "and subsection 2 of section 39-12-05.3"

Page 2, after line 5, insert:

**"SECTION 3. AMENDMENT.** Subsection 2 of section 39-12-05.3 of the North Dakota Century Code is amended and reenacted as follows:

2. Subject to the limitations imposed by subsection 1 on tires, wheel, and axle loads, a person may not operate on a highway that is not part of the interstate system any vehicle the gross weight of which exceeds that determined by the formula of:

$$W = 500 \left( \frac{LN}{N-1} + 12N + 36 \right)$$

where W equals the maximum gross weight in pounds on any vehicle or combination of vehicles; L equals distance in feet between the two extreme axles of any vehicle or combination of vehicles; and N equals the number of axles of any vehicle or combination of vehicles under consideration. The gross weight on state highways may not exceed one hundred five thousand five hundred pounds [47854.00 kilograms] unless otherwise posted and on all other highways the gross weight may not exceed eighty thousand pounds [36287.30 kilograms] unless designated by local authorities for highways under their jurisdiction for gross weights not to exceed one hundred five thousand five hundred pounds [47854.00 kilograms]. Local authorities are encouraged to assess all roads under their jurisdiction and designate the roads for the appropriate weight limits allowed under this subsection."

Renumber accordingly

2005 SENATE TRANSPORTATION

HB 1245

2005 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. 1245

Senate Transportation Committee

☐ Conference Committee

Hearing Date 3-10-05

Tape Number	Side A	Side B	Meter #
1	x		30-4010

Committee Clerk Signature

*Mary K Monson*

Minutes:

**Chairman Trenbeath** opened the hearing on HB 1245 relating to weight limitations.

**Representative Robin Weisz** (District 14) Introduced and testified in support of HB 1245. This bill would basically put the counties on the same playing field as the state as far as load limits and weight restrictions. It will move the maximum allowable under axle combinations of up to 105,500 lbs. and will require that restrictions be based on axle and not just on gross weight. There has been a huge increase in the volume of grain being moved by truck. Truckers have geared up for that and they are running combination axles, multiple axles, triaxle trailers, etc. These trailers are all legal on our state highways. They do that so they can haul a fair load without exceeding any axle restrictions. The issue comes about when most county roads they have to run on to get to the state highway have an 80,000 maximum restriction. (Meter 230) He said these are running lighter loaded per axle than most of the stuff running on the county roads.



**Senator Espegard** said that basically what this bill does is allows to bring the weight up to 105 on all roads including county roads.

**Rep. Weisz** said that was correct. In no way does it restrict any county or political subdivision from putting a lower load limit on. What it says is, that load limit would have to be fair for all vehicles including those that have been geared up to haul the bigger loads and haul them cost effectively. (Meter 500)

**Senator Bercier** asked if there was not a difference in how the state and county roads were constructed.

**Rep. Weisz** said there can be. Again, he said this does not prohibit them from restricting what those roads can haul.

**Senator Bercier** asked who would be responsible for repairing the roads if they are torn up.

**Rep. Weisz** The taxpayers, obviously, pay one way or the other. Nothing prevents the elevator from making deals like they do with contractors to allow the contractors to overload with the provision the contractor is responsible for bringing the road back to its original condition when they are done with the project. Nothing prohibits them from restricting because they can't keep up the road. Currently, there are vehicles going into the elevators overloaded and then other vehicles restricted to being underloaded, all on the same road. That is not fair and not equitable.

**Senator Espegard** asked if the overloaded situation he was talking about was the single axle truck that is loaded.

**Rep. Weisz** said when you have roads that are signed at maximum 40 ton, what stops a tandem truck from running 54,000 lbs. and legally, on a state highway, can only run 46.

That's this issue and that's where a five axle semi is legal at 40 ton, but a six axle or seven axle is still limited to 40 ton and is running way less per axle.

**Wade Williams** (Association of Counties) See attached testimony in opposition to HB 1245.

Some counties have already signed at 105,500 at their own choice. There are a number of counties that have made an exception to a road into an elevator and have taken it up to 105,500. There are 29 out of 52 counties that have already made adjustments to the load limits. It is a local control issue. They know their roads better than anyone else and know which ones can handle higher weight limits and which ones can't.

**Jon Mill** (County Engineer for Burleigh County) Spoke in opposition to HB 1245. He said this is pretty much a local control issue. Roads are built differently and most of the county roads were not as well designed as the state roads. The physics of loading and the benefits of axles all work on a well designed road but don't really work that way on our type of roads. This bill says all roads -- that's every city street, every county road, every township road, every bridge on those roads. If they were all the same and all good, that would be fine. Some counties have better roads and they voluntarily worked with the grain haulers or whoever and they put certain roads on, but not every road in their county. It's just certain ones. That's the issue. There are less roads that can handle it than there are roads that can't handle it. He showed a piece of road that was pretty typical of a local road. He emphasized the thickness and that there was an overlay on it. He pointed out that they break up quite readily. He also addressed the problem of signing all the roads (Meter 1600).

**Senator Mutch** asked what the difference is. It would break up with 80,000 or 105,000 providing there are the proper number of axles to accommodate the heavier weight. It would all be the same as far as the damage to the road.

**Jon Mill** said it gets into the physics. It all depends on the piece of road and how much base is under it.

**Senator Espegard** said it seemed like the issue was the 105 over the 80 and that axles don't count. It seemed to him that the number of axles and the weight should be figured differently. Rolling down on more axles would seem to be distributing the weight a lot better.

**Jon Mill** said if there was proper distance between the axles, it helps. Another thing is if the axles are down. There are additional axles put on a lot of hauling units, most of it as a tag arrangement where it can go up or down. (Meter 2000)

**Senator Espegard** asked if it was the wave action of the multiple axles that causes the problem, not necessarily the weight on each axle.

**Jon Mill** replied, yes that was correct, and it worsens depending on the type of roadways.

**Senator Bercier** said that the speed also makes a difference with the rippling effect. He then asked if he was to understand that the counties already have the authority to provide exemptions so the bill is not necessary to do that.

**Jon Mill** said yes that was their point. If a hauler has a valid problem with reaching an elevator or something, they can work it out with the locals.

**David Porsborg** (Oliver Co. Commissioner) See attached testimony in opposition to HB 1245.

**Jerry Brickner** (Stutsman Co. Engineer) See attached testimony in opposition to HB 1245. He reported that they were one of the counties that does have roads allowing maximum gross vehicle

weights in excess of 80,000. They represent some that have been rebuilt and designed accordingly. The vast majority of their roads aren't capable. (Meter 2590)

**Senator Bercier** asked Mr. Brickner if he had done much looking into the super singles.

**Jerry Brickner** replied that super singles are generally detrimental.

**Charles Morman** (Morton County) Testified in opposition to HB 1245. He addressed the problem as it related to bridges. Most of their bridges can't handle the 105,000 lb. loads. They are posted for 35 ton or less. Morton County did gear up one road in 2004 for heavier loads. The cost for this road was \$385,000/mile to come up with the standards to handle the types of loads that are expected to come across it. Normally an asphalt road costs about \$225,000/mile.

**Donny Malcolm** (President of the ND Township Officers Association) Testified against HB 1245. As an example, he pointed out that most of the roads in his township in western Ward County were built back in the 30's or early 40's with horse drawn scrapers and muckers etc. Upgrading over the years has probably been culverts, where needed, and a few inches of gravel here and there. If some of those roads were lucky, they received a complete couple of inches of gravel. The 80,000 lbs. is far exceeding their limits for those roads. The 105 exceeds it even worse. They are in a situation where the loads that are hauled on most public roads probably begin on a township road because those loads are leaving a field and entering the township road and eventually county and possibly state and federal highways. Bridges are designed to carry a certain amount of weight safely and over a period of time will allow that weight without any damage. It doesn't make any difference how many axles. Increasing weight on these roads is only going to create more hardship for the local entities--townships, counties. The townships

right now are suffering money wise just to maintain the roadways they have with the existing weights and mother nature damages etc.

**Bill Wocken** (City Administration, Bismarck) Testified in opposition to HB 1245. Cities are an unintended victim of this bill. He provided a copy of the century code 39-01-01 where it gives the definition of "highway". (See attached.) Because of the definition of highway, he concludes that every city street is probably affected by this bill. That would mean they would have to post every city street because most of the residential streets are certainly not built to this standard.

His concern was specifically with the city streets.

With no further testimony the hearing on HB 1245 was closed.

2005 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. HB 1245

Senate Transportation Committee

☐ Conference Committee

Hearing Date 3-11-05

Tape Number	Side A	Side B	Meter #
1	x		2800-3080

Committee Clerk Signature

*Mary K Monson*

Minutes:

**Chairman Trenbeath** opened HB 1245 for discussion and action.

**Senator Bercier** motioned a **Do Not Pass**. Seconded by **Senator Espegard**.

Discussion: The argument in favor of HB 1245 was that they weren't increasing the per axle weight but allowing more axles. The arguments in opposition were mostly from county highway engineers.

As per Chairman Trenbeath the vote was held open for Senator Mutch.

Final roll call vote 6-0-0. **Passed**. Floor carrier is **Senator Warner**.

Date: 3-11-05  
Roll Call Vote #:

2005 SENATE STANDING COMMITTEE ROLL CALL VOTES  
BILL/RESOLUTION NO 1245

Senate

TRANSPORTATION

Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number

Action Taken *Do Not Pass*

Motion Made By *Sen. Bercier* Seconded By *Sen. Espegard*

Senators	Yes	No	Senators	Yes	No
Senator Espegard	✓		Senator Bercier	✓	
Senator Mutch	✓		Senator Warner	✓	
Senator Nething	✓				
Senator Trenbeath, Chairman	✓				

Total (Yes) *6* No *0*

Absent *0*

Floor Assignment *Senator Warner*

If the vote is on an amendment, briefly indicate intent:

**REPORT OF STANDING COMMITTEE (410)**  
March 11, 2005 11:46 a.m.

**Module No: SR-45-4743**  
**Carrier: Warner**  
**Insert LC: . Title: .**

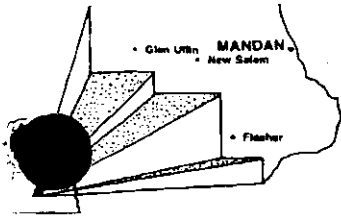
**REPORT OF STANDING COMMITTEE**

**HB 1245, as engrossed: Transportation Committee (Sen. Trenbeath, Chairman)**  
recommends **DO NOT PASS** (6 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING).  
Engrossed HB 1245 was placed on the Fourteenth order on the calendar.



2005 TESTIMONY

HB 1245



# **Morton County Road Department**

2916 37<sup>th</sup> Street NW  
Mandan, ND 58554

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**HB 1245**  
**January 27, 2005**

Honorable North Dakota State Representatives:

Morton County strongly recommends that this bill does not pass by the committee or the full legislature of North Dakota. It would have severe impacts on Morton County's roads and, I'm sure, other county roads across the state. With the present load limits, the asphalt roads in our county are not standing up, much less increasing this load limit, as recommended by this bill. The following examples are given as a reference as to the cost of maintaining asphalt roads with the present load restrictions.

Example #1: Morton County spent over \$128,000 to repair an asphalt road from I-94, south to Almont. This road is approximately nine miles long and all we were able to repair is approximately one-half of a four mile stretch of this road. The other half will have to be repaired in 2005 at a similar cost. This road is used by many truckers in the spring time to avoid the load restrictions imposed by the NDDOT on State Highway 21 and Highway 6 in Morton County. This, along with allowing trucks to go to higher load limits, as now proposed in this bill, would only accelerate the destruction of this road and would cost Morton County many hundreds of thousands of dollars to keep this road up.

Example #2: An asphalt patching project of Old Highway 10, between Glen Ullin and the Interstate. This cost Morton County approximately \$114,000 to patch about two miles of this six mile stretch of road, in 2004.

Example #3: Morton County spent over \$51,000 to repair a road up to and along a subdivision, north of Mandan. This damage was caused by the cement trucks and other trucks using this street during their routine servicing of the area. To allow these loads to go higher than that would only destroy this road much faster.

During the year of 2002, Morton County spent an excess of \$2 million to overlay Old Highway 10, from New Salem to Mandan. The deterioration of this road was accelerated more rapidly over the last few years because of the large truck loads that are using this particular highway. Although it runs parallel to the Interstate, approximately a mile south of it, there are many trucks using this road to get to local Morton County roads around the area. This is only an example of the destruction that can be caused by using the present load restrictions without going to the increased loads.

Morton County has many times, in the spring time, seen truckers using roads, known as the Judson Road, which is from the Interstate, south through Judson to Highway 21 at Flasher and the Almont Road, which is from the Interstate, south through the city of Carson to Highway 21. The reasons the trucks are using this is because they want to avoid the load restrictions that the NDDOT imposes in the spring time of the year. They are using our road because they know there will be much less law enforcement on these particular roads. We have worked with the North Dakota Highway Patrol to monitor these roads more, but they are stretched way too thin in the spring to worry about many County roads.

Approximately seven years ago, Morton County turned a stretch of Old Highway 10, from Almont to east of Glen Ullin, back to gravel because we could not maintain this road in a satisfactory condition required for the traveling public. This was accelerated, again, by the large loads and truck counts that were taking place on these particular county roads. There just simply are not enough funds in the County to maintain the asphalt system that we have in the County. Increasing the load limit will only increase our necessity to spend more dollars, or tax the people more heavily, or to take other roads out of the asphalt system and turn them back to a gravel surface road so that they may be maintained in a different style.

Another very good example of what can happen to a road when it is subjected to an excess number of loads and load weights, is State Highway 6, south of Mandan. In 2004, the NDDOT did a project from the junction of Highway 6 and Highway 21, south to the South Dakota border. All the material came out of a gravel pit west of Mandan. By the time this particular project was done there were many spots along Highway 6 that had been blown out because of the number of trucks and the loads that were being carried across this particular highway. This highway was built not that long ago by the NDDOT to stand up to these loads. How can Morton County roads be expected to stand up to this type of a load if this bill is passed? Again, Morton County recommends a do not pass on this particular bill.

**Testimony To The  
SENATE TRANSPORTATION COMMITTEE  
Prepared March 10, 2005 by the  
North Dakota Association of Counties  
Wade Williams, Government Relations**

**CONCERNING HOUSE BILL NO. 1245**

Chairman Trenbeath and members of the Senate Transportation Committee, thank you for the opportunity to testify. My name is Wade Williams, and I am representing the North Dakota Association of Counties.

House Bill 1245 increases the default weight limit from 80,000 to 105,500. This bill causes counties a number of concerns, including signage, design and liability.

On average the number of signs needed statewide would be 122 signs per county at a cost of \$230 a sign, bringing the total per county to \$28,000. Please note this is an average statewide, some counties already have 105,500 limit and need no new signage, other counties need as many as 350 signs to comply.

Design cost is another concern. The cost for a 80,000 pound road design is \$125,000 per mile. If this roadway is just in need of an overlay, upgrading to a 105,500 weight limit would make the costs significantly higher. Overlays depending on thickness can cost around \$125,000.00 per mile while reconstruction can cost \$200,000.00 to \$475,000.00 per mile.

Counties also have a liability concern, until all the roads meet 105,500 weight limit design. Those concerns being, if a road is designed for 80,000, yet the default weight limit is 105,500 and the road is not signed back to 80,000, the county is open to lawsuits should an accident occur on a roadway not designed for the greater weight limit.

It is for these reasons that the North Dakota Association of Counties asks you to consider a Do Not Pass recommendation on House Bill 1245. I'd be happy to address any questions you may have.

## TRANSPORTATION COMMITTEE

HB 1245

Chairman Trenbeath and members of the Transportation Committee, I am David Porsborg, an Oliver County Commissioner. I am here to speak in opposition to HB 1245. I do not want to see more weight carried on our county roads. We have a difficult time keeping our roads in shape with the current 80,000 pound limit. Raising the limits will cost my county either of two ways. First, the extra load will cause more damage to our roads, second, would be the cost of signing the roads to remain at 80,000 pounds.

I would like to see the language of this law be written that roads would be rated at 80,000 pounds. If a county wanted to post a road at more or less weight, they would be free to do that. With this language the counties that want to raise the rating above 80,000 pounds may do so, but the cost of signing those roads would be their expense, not the expense of a county that want their roads to remain rated at 80,000 pounds.

I am also opposed to an increase of the speed limit on county paved roads. Many of these older roads were not designed for higher speeds. The increased speed would make these roads more dangerous or another added expense to the counties to post the road at the 55MPH speed limit.

I am opposed to HB 1245 as it reads now and propose that the bill either be amended or that you please consider a Do Not Pass recommendation. Thank you for allowing me to testify.

## VEHICLE WEIGHT LIMITS

March 9, 2205  
G. B. Brickner

The AASHO Road Tests started in 1956 and completed in 1962 as well as the more recent Highway Cost Allocation (HCA) Studies all were conducted on tracks carefully designed to assure uniform, consistent, and reliable test results. Accordingly, the test tracks were carefully built from the subgrade up through surfacing.

The condition and performance of highway pavements depend on many factors, including the thickness of the various pavement layers, quality of construction materials and practices, maintenance, properties of the roadbed soil, environmental conditions (most importantly rainfall and temperature), and the number and weights of axle loads to which the pavements are subjected.

While pavement engineers traditionally have used ESAL factors estimated from the AASHO Road Test (started in 1956 and completed in 1962) as the basis for designing pavements, there is increasing recognition that better relationships between axle load and pavement deterioration are needed. Pavement distress models used in both the 1982 and 1997 Federal HCA Studies abandoned the use of ESALs to relate axle loads to factors that determine pavement life. While ESALs were not used as the basis for estimating pavement costs for this Study, they are widely understood by highway administrators, pavement engineers, and others concerned with the pavement impacts of truck size and weight scenarios. Therefore, they are used here as a benchmark for comparing relative pavement impacts of various truck configurations with different numbers and types of axles.

Pavement deterioration increases sharply with increases in axle load. On both flexible and rigid pavements, the load equivalence factor for a 20,000-pound single axle is about 1.5. Thus, 100 passes across a pavement by a 20,000-pound axle would have the same effect on pavement life as 150 passes by an 18,000-pound axle.

The primary load effect of axle spacing on flexible pavement performance is fatigue. Axle spacing is a major concern for fatigue. When widely separated loads are brought closer together, the stresses they impart to the pavement structure begin to overlap, and they cease to act as separate entities. While the maximum deflection of the pavement surface continues to increase as axle spacing is reduced, maximum tensile stress at the underside of the surface layer (considered to be a primary cause of fatigue cracking) can actually decrease as axle spacing is reduced. However, effects of the overlapping stress contours also include increasing the duration of the loading period. Thus, the beneficial effects of stress reduction are offset to an unknown degree by an increase in the time or duration of loading. The net effect of changes in axle spacing on pavement deterioration is complex and highly dependent on the nature of the pavement structure.

Generally, highway pavements are stressed by axle and axle group loads directly in contact the pavement rather than by GVW. The GVW, taking into account the number and types of axles and the spacing between axles, is distributed among the axles and determines axle loads. Over time, the accumulated strains (the pavement deformation from all the axle loads) deteriorate pavement condition, eventually resulting in cracking of both rigid and flexible pavements and permanent deformation or rutting in flexible pavements. If the pavement is not routinely maintained, the axle loads, in combination with environmental effects, will accelerate the cracking and deformation. Proper pavement design relative to loading is a significant factor in pavement life, and varies by highway system and the number of trucks in the traffic stream.

Axle groups, such as tandems or tridem, distribute the load along the pavement, allowing greater weights to be carried and resulting in the same or less pavement distress than that occasioned by a single axle at a lower weight. The spread between two consecutive axles also affects pavement life or performance; the greater the spread, the more each axle in a group acts as a single axle. For example, a spread of 9 to 10 feet results in no apparent interaction of 1-axle with another, and each axle is considered a separate loading for pavement impact analysis or design purposes. Conversely, the closer the axles in a group are, the greater the weight they may carry without increasing pavement deterioration beyond that occasioned by a single axle, dependent on the number of axles in the group. This benefit to pavements of adding axles to a group decreases rapidly beyond 4-axles.

Decades ago when the majority of roads were constructed within Stutsman County and other counties as well, the roadbuilders of the period had little knowledge of soil mechanics. Accordingly, some grave mistakes were made. Nearly all of the early roads were constructed using elevating graders, which were commonly known as "muckers". These units excavated materials to form ditches, and the excavated materials were cast from sides into the middle to form the roadbed. Normally, everything that was present was used to form the roadbed. This included vegetation, topsoil or black dirt, and subsoil materials. Little knowledge was available to indicate that vegetation and topsoil was detrimental to the ultimate strengths of the roadways. However, vehicles of the time were very light in weight by today's standards; and the roadways served their purpose, but often with serious problems. As time passed most of the roadways were upgraded which normally consisted of raising the grade, widening the roadway, and flattening inslopes and backslopes. However, in general a clay or granular material mixed with clay was used to raise the grade and widen the roadway. These better materials formed a cap over the materials beneath and served to "bridge" over the unstable materials. With the small loads of the past the clay caps developed sufficient strength to carry the loads. Often, many of these roadways were upgraded slightly more and pavements were installed. Again, pavement strengths were designed and determined in accordance with the anticipated maximum loads of the time, and generally the less than ideal subgrade and light pavement design served their intended purpose.

Nearly all of the roadways within Stutsman County have had little or no improvements to the subgrades or pavements in many years. In the meantime vehicle



gross weights have escalated rapidly with the technological improvements in trucks which enabled them to carry larger and larger loads. Simply put, the roadway strengths have not increased with the ability of trucks to haul the larger loads. In reality, roadway strengths have declined as insufficient funding has been available to properly maintain the roadways.

Because the vast majority of our roadbeds are constructed with materials that are contaminated with or consist primarily of topsoil, the roadways are unstable and subject to movement. Generally speaking, in those areas where clay caps have been installed, it can be stated that they were designed to support wheel or axle loadings far less than they are being asked to support today.

As described earlier the maximum deflection of the pavement surface continues to increase as axle spacing is reduced and the maximum tensile stress at the underside of the surface layer can actually decrease as the axle spacing is reduced. These statements have been demonstrated repeatedly on roadbeds having uniform and sound subgrades. However, these principles do not apply to a roadway that has a relatively thin clay cap over unsound subgrade materials. Lighter loads do not subject the clay cap which is acting as a "bridge" to large deflections. Accordingly, the "bridge" is capable of withstanding the lighter loadings. However, with heavy loadings and/or additional axles, interactions of the axle loadings along with the increased deflections overstress the strength capabilities of the clay cap or "bridge" and it fails. When it fails we then have pavement failure along with deep-seated subgrade failures.

It is the opinion of the Stutsman County Highway Department that raising the allowable maximum weight limits to 105,500 lbs will virtually destroy our county roadway system. While it may be observed that an isolated overload now and then will not do apparent damage to the roadway, it can be demonstrated that repetitive overloads will destroy the roadway.

## DEFINITIONS AND GENERAL PROVISIONS

39-01-01

13. "Director" means the director of the department of transportation of this state as provided by section 24-02-01.3.
14. Repealed by S.L. 1989, ch. 72, § 25.
15. "Driver" means every person who drives or is in actual physical control of a vehicle.
16. "Essential parts" means all integral and body parts of a vehicle of a type required to be registered hereunder, the removal, alteration, or substitution of which would tend to conceal the identity of the vehicle or substantially alter its appearance, model, type, or mode of operation and includes all integral parts and body parts, the removal, alteration, or substitution of which will tend to conceal the identity or substantially alter the appearance of the vehicle.
17. "Explosives" means any chemical compound or mechanical mixture that is commonly used or intended for the purpose of producing an explosion and which contains any oxidizing and combustible units or other ingredients in such proportions, quantities, or packing that an ignition by fire, by friction, by concussion, by percussion, or by detonator of any part of the compound or mixture may cause such a sudden generation of highly heated gases that the resultant gaseous pressures are capable of producing destructive effects on contiguous objects or by destroying life or limb.
18. "Farm tractor" includes every motor vehicle designed and used primarily as a farm implement for drawing plows, moving machines, and other implements of husbandry.
19. "Farm trailer" includes those trailers and semitrailers towed by a bona fide resident farmer hauling the farmer's own agricultural, horticultural, dairy, and other farm products if the gross weight, not including the towing vehicle, does not exceed twenty-four thousand pounds [10886.22 kilograms].
20. "Flammable liquid" means any liquid which has a flash point of seventy degrees Fahrenheit [21.11 degrees Celsius], or less, as determined by a tagliabue or equivalent closed-cup test device.
21. "Foreign vehicle" means every motor vehicle which is brought into this state other than in the ordinary course of business by or through a manufacturer or dealer and which has not been registered in this state.
22. "Gross weight" means the weight of a vehicle without load plus the weight of any load thereon.
23. "Guest" means and includes a person who accepts a ride in any vehicle without giving compensation therefor.
24. "Highway" means the entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel and of every way privately maintained within a mobile home park, trailer park, or campground containing five or more lots for occupancy by mobile homes, travel trailers, or tents when any part thereof is open for purposes of vehicular travel.