

**SB**

**50**

<TARGET><BILL>SB 50</BILL><SUBJECT>SB  
50</SUBJECT><COMM></COMM></TARGET>

# ALASKA STATE LEGISLATURE

1500 W Benson Boulevard  
Anchorage AK 99503  
907-269-0181



State Capitol  
Juneau AK 99801-1182  
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North to the Future

**Senator Cathy Giessel**  
Senate District N

## MEMORANDUM

**DATE:** February 15, 2017

**TO:** Senator Bert Stedman  
Chair, Senate Transportation Committee

**FROM:** Senator Cathy Giessel 

**RE:** Request for Committee Hearing, Senate Bill 50, Increase Studded Tire Fee

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I respectfully request that **Senate Bill 50** "Increase Studded Tire Fee" be scheduled for a hearing before the Senate Transportation Committee at your earliest convenience.

Senate Bill 50 seeks to increase the studded tire fee on all new studded tires sold. The bill provides intent language to direct those fees back to the Department of Transportation and Public Facilities to assist in road repair rather than into the general fund.

Attached you will find:

1. SB 50 version J
2. SB 50 Sponsor Statement
3. SB 50 Sectional Analysis
4. SB 50 Backup Documents
5. SB 50 Letters of Support
6. SB 50 Letters of Opposition

Please contact Kari Nore, 465-4843, in my office if you need any further information.

Chair Senate Resources Committee  
[Senator.Cathy.Giessel@akleg.gov](mailto:Senator.Cathy.Giessel@akleg.gov)

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## Senator Cathy Giessel

Senate District N

### Sectional Analysis

#### SB 50 Increase Studded Tire User Fee

**Section 1:** Amends AS 43.97.025(b)

This section amends the current statute in 3 ways. It first increases the studded tire user fee from \$5 to \$50, it reduces the weight of studs that fall under this fee from 1.1 grams to 0.5 grams. It also ensures that all tires sold through online retailers for use in Alaska are subject to this fee.

**Section 2:** Adds a new subsection under AS 43.98.025

This section creates a new subsection (i) to establish legislative intent that the funds generated from this fee will be directed back to the Department of Transportation for the repair and maintenance of state maintained roads. It does not create a dedicated fund.

**Section 3:** Adds a new section into the uncodified law of the State of Alaska

This section outlines that the act will apply to all tire sales and stud installations on or after the effective date.

**Section 4:** Effective Date

This Act would take effect on July 1, 2017.

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North to the Future

## Senator Cathy Giessel

Senate District N

### Sponsor Statement

#### SB 50 Increase Studded Tire User Fee

Alaska's road system is critical for our Alaskan families, businesses, and jobs: children travel on them to school, workers commute on them to work, businesses use them to transport the countless products on which we all depend, regardless of weather and seasons. The effectiveness, and safety, of our road system affects every single Alaskan.

Every year, we deal with road ruts, which pose significant dangers to Alaskans. The major contribution to these ruts are studded tires used during the winter. The ruts are most prominent on high traffic, high-speed roads, corresponding to where the most serious accidents occur every year.

Rutting from studded tires is dangerous and expensive: the Alaska Department of Transportation & Public Facilities (ADOTPF) estimates that road repair due to rutting for a two-lane stretch of road costs 1 million dollars per mile.

Though many northern states have banned studded tires, Alaska has no such law. Thanks to new technologies, there are winter tires free of studs that are nearly as effective for stopping without inflicting damage on our roads and highways.

Alaskans justifiably demand better, safer roads for their families, businesses, and jobs. Maintenance comes at a cost. We also must recognize that driving with studded tires is a choice, and one that comes at a cost for all of us who share our roads.

Senate Bill 50 proposes to increase the fee applied to the purchase of all new studded tires sold within the state of Alaska, including through online retailers. The bill directs all the money generated from the fee increase to go to the ADOTPF specifically to repair damaged roads across the state. Citizens would truly be paying for a service they have decided is important, while still choosing to use their method of travelling our shared roadways.

Our state's fiscal challenges are forcing Alaskans to do business differently, and more effectively. This bill strikes a balance that maintains essential public services while preserving Alaskans' ability to choose what is best for their vehicles. I respectfully ask you to support Senate Bill 50.

Chair Senate Resources Committee  
[Senator.Cathy.Giessel@akleg.gov](mailto:Senator.Cathy.Giessel@akleg.gov)

# Fiscal Note

State of Alaska  
2017 Legislative Session

Bill Version: SB 50  
Fiscal Note Number: \_\_\_\_\_  
( ) Publish Date: \_\_\_\_\_

Identifier: SSSB050-DOT-DES-2-17-17  
Title: INCREASE STUDED TIRE FEE  
Sponsor: GIESSEL  
Requester: (S) TRA

Department: Department of Transportation and Public Facilities  
Appropriation: Administration and Support  
Allocation: Commissioner's Office  
OMB Component Number: 530

**Expenditures/Revenues**

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2018 Appropriation Requested	Included in Governor's FY2018 Request	Out-Year Cost Estimates					
			FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>OPERATING EXPENDITURES</b>								
Personal Services								
Travel								
Services								
Commodities								
Capital Outlay								
Grants & Benefits								
Miscellaneous								
<b>Total Operating</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Fund Source (Operating Only)**

None								
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Positions**

Full-time								
Part-time								
Temporary								

**Change in Revenues**

None								
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Estimated SUPPLEMENTAL (FY2017) cost:** 0.0 *(separate supplemental appropriation required)*  
*(discuss reasons and fund source(s) in analysis section)*

**Estimated CAPITAL (FY2018) cost:** 0.0 *(separate capital appropriation required)*  
*(discuss reasons and fund source(s) in analysis section)*

**ASSOCIATED REGULATIONS**

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? No  
If yes, by what date are the regulations to be adopted, amended or repealed?

**Why this fiscal note differs from previous version:**

Not applicable; initial version.

Prepared By: Mike Lesmann  
Division: Commissioner's Office  
Approved By: Amanda Holland  
Agency: DOT&PF

Phone: (907)465-4772  
Date: 02/17/2017 02:05 PM  
Date: 02/17/17

**FISCAL NOTE ANALYSIS**

**STATE OF ALASKA  
2017 LEGISLATIVE SESSION**

**BILL NO. SB 50**

**Analysis**

SB 50 increases the studded tire fee from \$5 to \$50 and provides the Legislature with the ability to directly appropriate the fees imposed by this bill to the repair and maintenance of roads maintained by the state. The fees are separately accounted for under AS 37.05.142.

# Fiscal Note

State of Alaska  
2017 Legislative Session

Bill Version: SB 50  
Fiscal Note Number: \_\_\_\_\_  
( ) Publish Date: \_\_\_\_\_

Identifier: SSSB50-DOR-TAX-02-17-17  
Title: INCREASE STUDDER TIRE FEE  
Sponsor: GIESSEL  
Requester: Senate Transportation

Department: Department of Revenue  
Appropriation: Taxation and Treasury  
Allocation: Tax Division  
OMB Component Number: 2476

**Expenditures/Revenues**

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2018 Appropriation Requested	Included in Governor's FY2018 Request	Out-Year Cost Estimates					
			FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>OPERATING EXPENDITURES</b>								
Personal Services								
Travel								
Services								
Commodities								
Capital Outlay								
Grants & Benefits								
Miscellaneous								
<b>Total Operating</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Fund Source (Operating Only)**

None								
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Positions**

Full-time								
Part-time								
Temporary								

**Change in Revenues**

None	***	***	***	***	***	***	***	***
<b>Total</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Estimated SUPPLEMENTAL (FY2017) cost:** 50.0 (separate supplemental appropriation required)  
(discuss reasons and fund source(s) in analysis section)

**Estimated CAPITAL (FY2018) cost:** 0.0 (separate capital appropriation required)  
(discuss reasons and fund source(s) in analysis section)

**ASSOCIATED REGULATIONS**

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? No  
If yes, by what date are the regulations to be adopted, amended or repealed?

**Why this fiscal note differs from previous version:**

Not applicable; initial version.

Prepared By: Brandon Spanos, Deputy Director  
Division: Tax Division  
Approved By: Jerry Burnett, Deputy Commissioner  
Agency: Department of Revenue

Phone: (907)269-6736  
Date: 02/17/2017 03:30 PM  
Date: 02/17/17

## FISCAL NOTE ANALYSIS

STATE OF ALASKA  
2017 LEGISLATIVE SESSION

BILL NO. SB 50

### Analysis

#### Bill Analysis

In 2003 the Alaska Legislature enacted a tire fee which is imposed on the sale of new tires in Alaska for motor vehicles designed for use on a highway. An additional tire fee is imposed on the sale of tires with metal studs weighing more than 1.1 grams each (heavy studs). The additional tire fee also applies to the installation of heavy studs in new or used tires.

The current rates are \$2.50 per tire for new tires sold and \$5.00 per tire for each studded tire sold or stud installation on a tire.

The primary change in this legislation would be to increase the fee for studded tires sold or stud installations performed. The proposed increase is \$45.00 per tire. The rate would go from \$5.00 to \$50.00 per studded tire. The legislation would also impose the studded tire fee on tires that have "light studs" weighing more than 0.5 grams. In addition, this legislation imposes a use tax on tires purchased online and used primarily in Alaska.

#### Revenue Impact

It is difficult to estimate the revenue impact of the proposed changes. The DOR doesn't track the sale of tires with light studs or their installation. Therefore, it's impossible to estimate revenue from those sales. We also don't know the price elasticity of studded tires, but it's logical to assume that sales would decrease if the fee is increased by 900 percent. Over the past three fiscal years, the state collected the studded tire fee on an average of 71,000 tires per year. If we assume no price elasticity, the projected revenue from the increase would be \$3,195,000 on tires with heavy studs. Therefore, DOR's best estimate is between \$0 and over \$3,195,000 (over because of the tax on light studs).

#### Implementation Cost

This legislation would require the Department of Revenue to update its Tax Revenue Management System (TRMS) and Revenue Online (ROL) which allows a taxpayer to file a return online. The update would consist of reprogramming both systems, updating the return rules in TRMS and testing both systems thoroughly to verify that they function as expected. We would also need to update the current tax return forms.

The supplemental fiscal note figure of \$50.0 in FY17 is to cover the costs of having our contractor update the two systems. We do not anticipate any continuing costs or additional staff needs. After the implementation of the changes, this legislation would not cause any additional administrative burden on the Tax Division.

# LEGAL SERVICES

DIVISION OF LEGAL AND RESEARCH SERVICES  
LEGISLATIVE AFFAIRS AGENCY  
STATE OF ALASKA

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## MEMORANDUM

February 11, 2017

**SUBJECT:** Tax on Sales Occurring Outside of the State  
(Work Order No. 30-LS0151V)

**TO:** Senator Cathy Giessel  
Attn: Kari Nore

**FROM:** Emily Nauman   
Legislative Counsel

Please find the abovementioned bill attached. You requested that the bill require an online retailer to collect the studded tire fee and remit it to the state. As I discussed with Ms. Nore, under current law, based on the federal commerce clause, a state can not compel an out of state vendor whose only contacts with the state are by mail or common carrier to collect a state tax. There are several possible resolutions. Some background is needed. Therefore, this memo briefly reviews the history of the constitutional issue. A discussion of possible solutions follows.

### I. A BRIEF HISTORY: TAX COLLECTION BY AN OUT-OF-STATE ENTITY

In 1992, in *Quill Corp. v. North Dakota*, the United States Supreme Court held that, under the federal commerce clause, a state cannot require a retailer to collect a tax on behalf of a state in which it has no physical presence because to do so would place an undue burden on interstate commerce.<sup>1</sup> The *Quill* decision reaffirmed the commerce clause test of *Complete Auto Transit v. Brady*, finding that mail order solicitation by a company unaccompanied by the company's physical presence in the taxing state was not sufficient to meet the "substantial nexus" standard under commerce clause analysis that would justify the obligation to collect and remit the use tax on purchases of cigarettes.<sup>2</sup>

In 2010, Colorado enacted a law mandating that remote sellers inform each customer of her or his annual purchases and remit the same information to the state of Colorado. In August of 2013, in the United States Supreme Court ruled on a procedural issue related to the Colorado law. Importantly, in his concurring opinion, Justice Kennedy pressed the legal system to "find an appropriate case for [the] Court to reexamine *Quill*."<sup>3</sup>

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<sup>1</sup> 504 U.S. 298, 312.

<sup>2</sup> 430 U.S. 274, 51 L.Ed.2d 326, 97 S.Ct. 1076 (1977).

<sup>3</sup> *Direct Mktg. Ass'n v. Brohl*, 135 S. Ct. 1124, 1135 (2015).

Following the remand to the lower court, the Tenth Circuit ruled that Colorado's reporting requirement was constitutional because it placed no additional burden on interstate commerce. The Tenth Circuit noted that the law did not require sellers to comply with a greater burden of tax collection and reporting, and the statute did not require out-of-state retailers to assess, levy, or collect a tax on the state's behalf.<sup>4</sup> This ruling was also appealed to the United States Supreme Court and, recently, on December 12, 2016, certiorari was denied.

In summary, it appears the United States Supreme Court has been primed, and is looking for an appropriate case to overturn or modify the *Quill* holding. However, at this time, *Quill* is still law; a state can not compel an out of state vendor whose only contacts with the state are by mail to collect a state tax.<sup>5</sup>

## II. OTHER STATES, POSSIBLE SOLUTIONS.

A. Amazon Laws. Recently several states have recently employed an "economic nexus" model in state sales and use tax laws.<sup>6</sup> In other words, states are adopting laws attempting to meet the *Quill* and *Complete Auto* test of a "substantial nexus" to the state by establishing that nexus through economic activity in the state. These laws have been nicknamed "Amazon laws," presumably after amazon.com.

Given that more than a few states have adopted an economic nexus model, and the comments of Justice Kennedy, it seems only a matter of time until the United States Supreme Court takes up a case reviewing the *Quill* decision. At this time, it is not clear which state law will be the foundation of this case.

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<sup>4</sup> *Direct Mktg. Ass'n v. Brohl*, 814 F.3d 1129 (10th Cir. 2016), cert. denied, (U.S. Dec. 12, 2016).

<sup>5</sup> Ms. Nore mentioned she thought that a "fee" might be viewed differently by the Court. I disagree. The Court cited the burden on interstate commerce as the collection of the tax, a fee puts the same burden on a seller.

<sup>6</sup> Under the "economic nexus" model, a company is deemed to have nexus with the taxing state if the company has sales in the state; there is no physical presence requirement. Ohio, South Dakota, Alabama, and Washington have passed measures adopting various forms of economic nexus. In South Dakota, sellers with annual sales over \$100,000 or with 200 separate transactions in the state are deemed to have nexus with the state and are obligated to collect and remit tax. In Alabama, sellers with over \$250,000 of annual sales are deemed to have nexus in the state even though they don't have any physical connection with the state. Idaho, Illinois, Louisiana, Mississippi, Nebraska, Oklahoma, Utah, Rhode Island, and Vermont have all introduced legislation which would create a similar economic nexus test.

Coming back to the bill, it is advisable for your legislation to incorporate an economic nexus model. While it is unclear if the economic nexus model is constitutional, it certainly is a step towards attempting to establish a "substantial nexus" with the state.

Even if an economic nexus model is used in your bill, note that there has been no United States Supreme Court case overturning *Quill*. Nor has there been congressional action that negates *Quill* as the benchmark for determining when a company has nexus in a state for sales tax purposes. *Quill* is still the law, thus, if the bill does enact an economic nexus model, it could be open to constitutional attack. On the other hand, if the bill adopts an economic nexus model it would be prepared in the event that *Quill* is overturned and could potentially increase revenue, not forgo income lost in the meantime.<sup>7</sup>

B. Collection from Users. A second option in your bill is to require a person using studded tires in the state that were purchased outside the state to pay a user fee. Because the person being taxed is in the state, commerce clause issues do not arise. In addition, you could require an online seller to notify the state and the purchaser of the studded tire purchase, similar to the law enacted in Colorado.<sup>8</sup>

One point of clarification. Ms. Nore called me several days ago and asked if the bill imposed a fee on the installation of studded tires. I provided the accurate answer, it does not. However, the bill does impose a fee for the installation of studs onto a tire.

If I may be of further assistance, please advise.

ELN:boo  
17-146.boo

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<sup>7</sup> It might also be possible to to enact an economic nexus requirement that springs into effect if *Quill* is overturned.

<sup>8</sup> Again, the Tenth Circuit found that the Colorado law did not violate the commerce clause. The ruling was appealed to the United States Supreme Court and certiorari was denied.



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

## Department of Transportation and Public Facilities

OFFICE OF THE COMMISSIONER  
Marc Luiken, Commissioner

3132 Channel Drive  
P.O. Box 112500  
Juneau, Alaska 99811-2500  
Main: 907.465.3900  
dot.state.ak.us

February 28, 2017

The Honorable Bert Stedman  
Alaska State Senate  
State Capitol Building, Room 30  
Juneau, Alaska 99801

Dear Senator Stedman:

Thank you for the opportunity to present information relative to Senate Bill 50 during the February 23, 2017, meeting of the Senate Transportation Committee. In response to questions posed by committee members, the following information is provided:

- ***Page 5 of the DOT&PF presentation depicts a 2008 picture of road damage on Eagle River Loop Road. When was that asphalt laid, and what was the mix design of that asphalt?***

This hot-mix asphalt, a Type II-Class A asphalt, was laid in 1993. (See mix design enclosed).

- ***On what date did DOT&PF implement its hard aggregate policy?***

The department's August 2, 2013, memo can be seen at:

[http://www.dot.state.ak.us/stwddes/dcspubs/assets/pdf/directives/081413\\_hard\\_aggregate\\_policy.pdf](http://www.dot.state.ak.us/stwddes/dcspubs/assets/pdf/directives/081413_hard_aggregate_policy.pdf)

- ***Is it cheaper to use hard aggregate that is sourced from the state of Washington versus hard aggregate that comes from Cantwell, Alaska?***

It should be mentioned first that, for a given paving project, the department does not specify or stipulate the use of specific hard aggregate material sources. The department only specifies the quality of the aggregate to be used, i.e., the hardness of the aggregate as measured by the Nordic Abrasion test-ATM 312. It is up to the contractor or producer of the asphalt mix to acquire the aggregate from a source that meets the department's aggregate hardness requirement. Accordingly, we have seen that contractors paving projects in southeastern Alaska and surrounding coastal areas (including Kodiak Island) have barged their hard aggregate from Washington State and British Columbia sources; whereas contractors paving projects in southcentral have used hard aggregates that were delivered by rail from Cantwell, Alaska.

*"Keep Alaska Moving through service and infrastructure."*

➤ ***What percentages of Alaskan vehicles are operating with studded tires?***

The department is aware of estimates that range between 12% and 20%, but is currently unable to substantiate any percentage. The department is currently involved with the University of Alaska in a research project that is intended to provide us with more accurate information.

➤ ***Excluding studded tires, what are other causes of wear and tear on roads?***

Other causes of wear and tear on roads are environmental affects and normal vehicular traffic.

Asphalt pavements are prone to three main distresses:

- Low-temperature cracking, in the form of transverse cracks perpendicular to the pavement's centerline, primarily due to the shrinkage of the asphalt layer due to low temperatures.
- Fatigue cracking, caused by fatigue failure of the asphalt layer under repeated traffic loading, initially starts as longitudinal cracks in the wheel path then, in its advanced stages, evolves into a series of interconnected cracks forming a pattern resembling the back of an alligator.
- Rutting is surface depression within the wheel path areas, parallel to the centerline, caused by repeated wheel loads.

There are two types of asphalt surface rutting:

- During hot summer months, traffic loading may cause wheel path depression in the form of plastic deformation in the asphalt surface layer, causing consolidation and lateral movement of the asphalt material, in addition to uplifting (shearing) along the sides of the rut. The main feature of this type of rutting is the continuous longitudinal bulge or ridge that forms at the edges of the rut.
- Material removal from the pavement surface through studded tires' abrasive wear is seen as depression or indentation in the wheel path, accompanied by discoloration of the wheel path relative to its surrounding pavement (due to aggregate abrasion and polishing), and the absence of a bulge or ridge at the edges of the rut. (The enclosed slide is a comparison between the two types of surface rutting; refer to the notes under the slide).

➤ ***Would the increased revenue generated by increased studded tire fees result in more service from DOT&PF?***

As currently drafted, Senate Bill 50 does not guarantee an increase of operating budget funds to the department. The proposed language provides that revenues from studded tire fees are separately accounted for as program receipts by the Department of Administration under AS 37.05.142. The proposed language gives the Legislature the *ability* to directly appropriate revenues generated by the bill to the repair and maintenance of roads maintained by the state.

➤ ***What is the cost-effectiveness of using hard aggregate?***

While the cost of using hard aggregate material is generally greater than the cost of using a local aggregate source, the department believes the life cycle cost analysis and improvement in pavement performance reflects a financial benefit of hard aggregate use in the long run.

Examples of this positive return on investment have recently been seen on pavement resurfacing projects on Egan Drive in Juneau and on Tudor Road in Anchorage.

Results from the studies referenced below indicate that the economy of hard aggregate materials use supports the transportation costs for importation of these aggregates to regions of the state that do not offer them.

- Cost-Effective Rut Repair Methods shows life cycle cost analyses performed for various rut repair methods, including the use of hard aggregate in mixes. (See Section 2.3 of the report.)  
[http://www.dot.state.ak.us/stwddes/research/assets/pdf/fhwa\\_ak\\_rd\\_01\\_04.pdf](http://www.dot.state.ak.us/stwddes/research/assets/pdf/fhwa_ak_rd_01_04.pdf)
- Cost-Effectiveness of Hard Aggregate Sources: Alaska Hard Aggregate Performance Study [http://www.dot.state.ak.us/stwddes/research/assets/pdf/fhwa\\_ak\\_rd\\_02\\_10.pdf](http://www.dot.state.ak.us/stwddes/research/assets/pdf/fhwa_ak_rd_02_10.pdf)
- Cantwell Hard Aggregate Development Feasibility study  
[http://www.dot.state.ak.us/stwddes/desmaterials/assets/pdf/hard\\_ashpalt\\_aggregate\\_study/6\\_final\\_cantwell\\_development\\_study.pdf](http://www.dot.state.ak.us/stwddes/desmaterials/assets/pdf/hard_ashpalt_aggregate_study/6_final_cantwell_development_study.pdf)

➤ ***Where can we find more hard aggregate material sources?***

Hard aggregate material sources are identified and profiled in a 2013 R&M Consultants report at:

[http://www.dot.state.ak.us/stwddes/desmaterials/assets/pdf/hard\\_ashpalt\\_aggregate\\_study/final\\_report\\_hard\\_aggregate\\_study\\_4.pdf](http://www.dot.state.ak.us/stwddes/desmaterials/assets/pdf/hard_ashpalt_aggregate_study/final_report_hard_aggregate_study_4.pdf)

➤ ***Is it true that there is a hard aggregate material source in/near Juneau?***

While last year's Egan Drive resurfacing project used hard aggregate sourced from Dupont, Washington, a hard aggregate source from Haines was used to pave Egan Drive in 2000.

The department is aware of three sources of hard aggregate in the Haines area, but the current state of these sites is unknown at present time:

- Haines Hwy: Mile 4.5 site;
- Haines Hwy: Mile 5.5 site; and
- Mile 25 Klehini site

It should be mentioned that the presence or discovery of a hard aggregate material source does not make the source readily available for paving project use. Significant investment should be made and major development efforts should be carried out to produce sufficient material quantities for projects in that area.

➤ ***For past projects, has DOT&PF been able to transport hard aggregate via rail (to projects in the Mat-Su Valley or elsewhere)?***

The department does not transport the aggregate; the contractor does that work. When hard aggregate was specified, the Anchorage bowl and Mat-Su Valley paving projects used hard aggregate sourced from Cantwell, Alaska, that was hauled by rail to Anchorage area asphalt plants.

➤ ***Please explain DOT&PF's seasonal weight restriction policy. What are the weight restrictions imposed in the Spring?***

In accordance with 17 AAC 25.100(a), the department may impose restrictions on any aspect of vehicle operation on any highway whenever the highway, in judgment of the commissioner, may be seriously damaged or destroyed by such operation. The restrictions shall be effective after due notice has been given to the public, except in an emergency requiring immediate action. The legal vehicle weight of a vehicle or combination of vehicles, including load and equipment, operated or moved on the state highway system is established in 17 AAC 25.013 and 17 AAC 25.335.

The department posts public notices to inform the public and the trucking industry when seasonal weight/load restrictions are to be imposed by the department on its highway system for all vehicles over 10,000 pounds gross vehicle weight (GVW). These weight restrictions are stated as a percentage of legal allowable weight and shall be applied to the maximum axle loading cited in 17 AAC 25.013(e). These annual restrictions are very dependent upon weather, local soil conditions and frost depth, but usually occur between March and June of each year. These restrictions can reduce the allowable gross vehicle weight by as much as 50%. When imposed, these restrictions are posted on the department's Division of Measurement Standards & Commercial Vehicle Enforcement webpage found at: <http://www.dot.alaska.gov/mscve/index.cfm>.

➤ ***Has DOT&PF used rubberized asphalt in any of its projects?***

Rubberized asphalt mixes have been used on department projects as follows:

- 2007 - Elmore Road: from Abbott to Tudor Road
- 2009 - East Dowling Road
- 2011 - Seward Hwy MP 115-124
- 2009 - \*Glenn Hwy: from Hiland Road to Eklutna
- 2010 - \*Glenn Hwy: from Airport Heights to Hiland Road; and from Eklutna to Parks Hwy Junction.  
\*Scheduled for mill-and-fill resurfacing in 2017 with asphalt mix containing hard aggregate.

Rubberized asphalt mix was also used in Alaska in the 1980s. In the mid-1980s, rubberized asphalt mix (a proprietary product at that time, called PlusRide) was used in paving the A-C Couplet in Anchorage, and Airport Way in Fairbanks. The Anchorage mix lasted more than 30 years. Old timers report that the Fairbanks mix lasted two weeks and was replaced with conventional mix, after the occurrence of several accidents caused by the slick pavement surface. Workmanship and accurate proportion of ingredients that go into the mix are crucial for the longevity of the mix.

➤ ***Please provide information on DOT&PF's recent high-friction surface treatment efforts.***

Through a summer 2016 Federal Highway Safety Improvement Program (HSIP) project, Central Region placed high-friction surface treatment (HFST) at 28 locations (short application segments) in an area stretching from Wasilla, to Anchorage, to Soldotna. The 28 locations were chosen with the help of the Central Region Traffic Section, based on Central Region crash data analysis.

February 28, 2017

HFST is used to improve safety by increasing friction in critical areas such as: high accident areas, horizontal curves, high speed ramps, and bridge decks. HFST is placed on sound pavement (no cracking, rutting, or other distresses should be present). HFST is placed by applying a polymer resin binder on top of a dry pavement surface followed by spreading calcined bauxite aggregate topping. The total cost for the 28 sections was \$4,060,100 for 147,640 square yards of HFST, i.e., \$27.50/square yard.

If you or your committee members have further questions, please feel free to contact Mike Lesmann at (907)465-4772.

Sincerely,

A handwritten signature in black ink, appearing to read "Marc Luiken". The signature is fluid and cursive, with a large initial "M" and "L".

Marc Luiken  
Commissioner

Enclosures

Cc: Darwin Peterson, Legislative Director, Office of the Governor  
Mike Lesmann, Legislative Liaison, DOT&PF

State of Alaska  
 Department of Transportation & Public Facilities  
 Central Materials Laboratory

## Bituminous Mix Design Pre2009 Sample Data

State Num 58545      Federal Nu F-M-0551(2)      QUALITY  
 Name Eagle River Loop to Hiland Rd Ph. II      Field Nu MD-2      Lab Num 1991A-1927  
 Sampl Type IIA HAP Mix Design      Item Num 401(1)      Source Quality Asphalt  
 Sampled From Stockpiles MLF      Date Sample 08/22/1991

Sieve	%Pass	Spec	Method	ATM T-17	Quality Num	1991A-1155			
3/4" / 19.0	100	100	Blend	25:00:75:00: :	Quality Num				
1/2" / 12.5	90	83-97	Blows	75 GYR	Quality Num				
3/8" / 9.5	78	71-85	Rice						
#4 / 4.75	53	46-60	VF	74					
#8 / 2.36			VTM	4.6 3-5					
#10 / 2.00	30	24-36	VMA	14.7 14.0+					
#16 / 1.18			VCA						
#30 / .600			Stability	2260 1500+					
#40 / .425	15	11-19	Flow	12 8-16					
#50 / .300			Unit Wt	150.3					
#80 / .210	9	5-13	RUT						
#100 / .150			Anti-Strip Pavebond Special		Required	0.25			
#200 / .075	7	4-10	Mixing Temp	290					
Method			CompactionTemp	180					
Frac 1 Face		70 min	Dust/Asphalt Ratio Specification		F				
Frac 2 Face			Dust/Asphalt Ratio by Effective %AC		No				
Frac All			AC	UW	Stab	Flow	VTM	VF	VMA
Flat Elong			4.5	148.1	2290	13	7.6	58	15
Flat 1:3			5	149.5	2270	13	5.9	67	14.7
Flat 1:5			5.5	150.3	2250	12	4.7	74	14.7
PI		4	6	150.9	2300	12	3.5	80	14.8
FA Angularit			6.5	150.3	2210	13	3.1	83	15.5
Bulk	2.667								
Effective		Agg SpG	2.768						
Asph Type	MAPCO AC-5								
Asph Opt	5.5	5.0-6.0							
Asph SpG									
	Optimum Determination								
% Asphalt	5.7	@ % Voids	4.0						

Report Remarks

State of Alaska  
Department of Transportation & Public Facilities  
Central Materials Laboratory

## Bituminous Mix Design Pre2009 Sample Data

State Num 58545      Federal Nu F-M-0551(2)      QUALITY  
 Name Eagle River Loop to Hiland Rd Ph. II      Field Nu MD-2      Lab Num 1991A-1927  
 Sampl Type IIA HAP Mix Design      Item Num 401(1)      Source Quality Asphalt  
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Sieve	%Pass	Spec
3/4" / 19.0	100	100
1/2" / 12.5	90	83-97
3/8" / 9.5	78	71-85
#4 / 4.75	53	46-60
#8 / 2.36		
#10 / 2.00	30	24-36
#16 / 1.18		
#30 / .600		
#40 / .425	15	11-19
#50 / .300		
#80 / .210	9	5-13
#100 / .150		
#200 / .075	7	4-10

Method  
 Frac 1 Face      70 min  
 Frac 2 Face  
 Frac All  
 Flat Elong  
 Flat 1:3  
 Flat 1:5  
 PI      4  
 FA Angularit  
 Bulk      2.667  
 Effective      Agg SpG 2.768  
 Asph Type      MAPCO AC-5  
 Asph Opt      5.5      5.0-6.0  
 Asph SpG  
 Optimum Determination  
 % Asphalt 5.7      @ % Voids 4.0

Method      ATM T-17      Quality Num 1991A-1155  
 Blend      25:00:75:00:      Quality Num  
 Blows      75      GYR      Quality Num  
 Rice  
 VF      74  
 VTM      4.6      3-5  
 VMA      14.7      14.0+  
 VCA  
 Stability      2260      1500+  
 Flow      12      8-16  
 Unit Wt      150.3  
 RUT  
 Anti-Strip Pavobond Special      Required 0.25  
 Mixing Temp      290  
 CompactionTemp      180  
 Dust/Asphalt Ratio Specification      F  
 Dust/Asphalt Ratio by Effective %AC      No  

AC	UW	Stab	Flow	VTM	VF	VMA
4.5	148.1	2290	13	7.6	58	15
5	149.5	2270	13	5.9	67	14.7
5.5	150.3	2250	12	4.7	74	14.7
6	150.9	2300	12	3.5	80	14.8
6.5	150.3	2210	13	3.1	83	15.5

 Nuke Mass      Calibration  
 Gauge  
 A1  
 A2  
 A3  
 Background

Report Remarks

## Plastic Deformation versus Studded Tire Wear



**Plastic Deformation  
Washington State**

**Studded Tire Wear  
Arctic Blvd. - Anchorage**

Integrity • Excellence • Respect

In the WA rutting photo, notice the ridges or bulges at the edges of the wheel paths. The asphalt mix is being consolidated and displaced laterally. This type of rutting is called plastic flow or deformation, due to heavy trucks (notice the dual-tire imprint in each wheel path), typically occurring during hot summer months when the mix is soft.

The Anchorage photo shows rutting as depression in the wheel path without any ridges or bulges at the edges of wheel path ruts. That is indicative of abrasive rutting, i.e. removal/dislodging of material from the wheel path.

The majority of the rutting seen on southcentral and southeastern Alaska highways is due to studded tire abrasive wear. Some plastic deformation is seen at intersections where trucks stop and/or turn (e.g. Old Seward and O'Malley intersection, where trucks from the adjacent industrial areas take the intersection to reach the Seward Hwy).

**Sec. 28.35.155. Operation of vehicle with certain tires prohibited.**

(a) It is unlawful to operate a motor vehicle with studded tires or tires with chains attached on a paved highway or road from May 1 through September 15, inclusive, north of 60 North Latitude and from April 15 through September 30, inclusive, south of 60 North Latitude, except that at any latitude on a paved portion of the Sterling Highway a person may not operate a motor vehicle with studded tires or tires with chains attached from May 1 through September 15, inclusive. The commissioner of public safety shall by emergency order provide for additional lawful operating periods based on unusual seasonal or weather conditions. An emergency order adopted under this section is not subject to AS 44.62 (Administrative Procedure Act). Upon application, a special individual traction permit may be issued by the Department of Administration allowing the operation of a motor vehicle with studded tires or chains at any time at the discretion of the vehicle owner. The fee for the special individual permit is one-third of the biennial registration fee applicable to that class of vehicle under AS 28.10.421. The department may provide an appropriate sticker or other device identifying the vehicle to which the permit applies.

(b) In this section, "studded tire" means a tire with metal studs or spikes imbedded in the periphery of the tire surface, and protruding not more than one-fourth inch from the tire surface.

**Sec. 43.98.025. Tire fees.**

(a) A fee of \$2.50 a tire is imposed on the retail sale of new tires for motor vehicles designed for use on a highway.

(b) In addition to the fee imposed under (a) of this section, a fee of \$5 a tire is imposed on the retail sale in the state on or after July 1, 2004, of tires for motor vehicles designed for use on a highway that are studded with metal studs or spikes weighing more than 1.1 grams each embedded in the periphery of the tire surface and protruding beyond the tread surface of the tire, or on the installation in the state on or after July 1, 2004, for a fee of metal studs or spikes weighing more than 1.1 grams each on a tire for a motor vehicle designed for use on a highway.

(c) A seller shall add the amount of the fees imposed by this section to the total price of the tire or service subject to the fees, and the fees shall be stated separately on any sales receipt, invoice, or other record of the sale or other transfer or of the installation of studs. That portion of the total price of the tire or service consisting of the fees imposed by this section is not subject to a sales tax or a use tax imposed by the state or a subdivision of the state.

(d) A seller shall collect the fees from the purchaser. A seller shall file a return on a form prescribed by the department and remit the fees collected to the department not later than the last day of the calendar month following the last day of the calendar quarter of the sale or installation. The department may only, on a form required under this subsection, require a seller to provide information on tires subject to the tax under this section.

(e) A seller remitting the fees collected under this section to the department in accordance with (d) of this section may retain five percent of the amount collected, not to exceed \$600 a quarter, to cover expenses associated with collecting and remitting the fees.

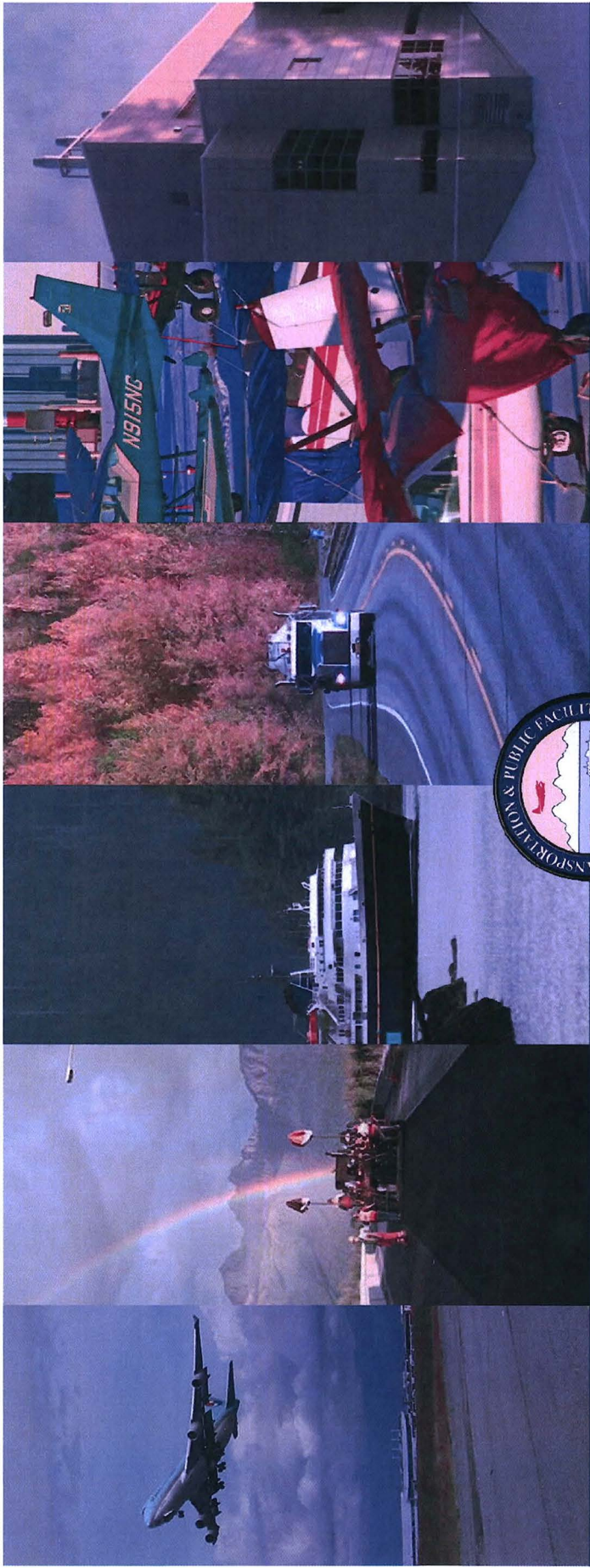
(f) The provisions of AS 43.05 and AS 43.10 apply to this section.

(g) The fees imposed in this section do not apply to the following tires and services if the purchaser provides the seller with a certificate of use on a form prescribed by the department:

- (1) tires or services sold to federal, state, or local government agencies for official use; or
- (2) tires for resale.

(h) In this section,

- (1) "highway" has the meaning given in AS 28.90.990;
- (2) "motor vehicle" has the meaning given in AS 28.90.990;
- (3) "seller" means a seller of tires or a person who installs studs on motor vehicle tires for a fee.



# Alaska Department of Transportation & Public Facilities

## Studded Tire Presentation

Lance Mearig, P.E., Chief Engineer

February 23, 2017

# State Highway System subject to Studded Tire Damage

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- **Pavement Ruts:** Longitudinal depressions in the wheel paths
- **High Traffic Volume, High Speed Roads** are more prone to Studded Tire Damage

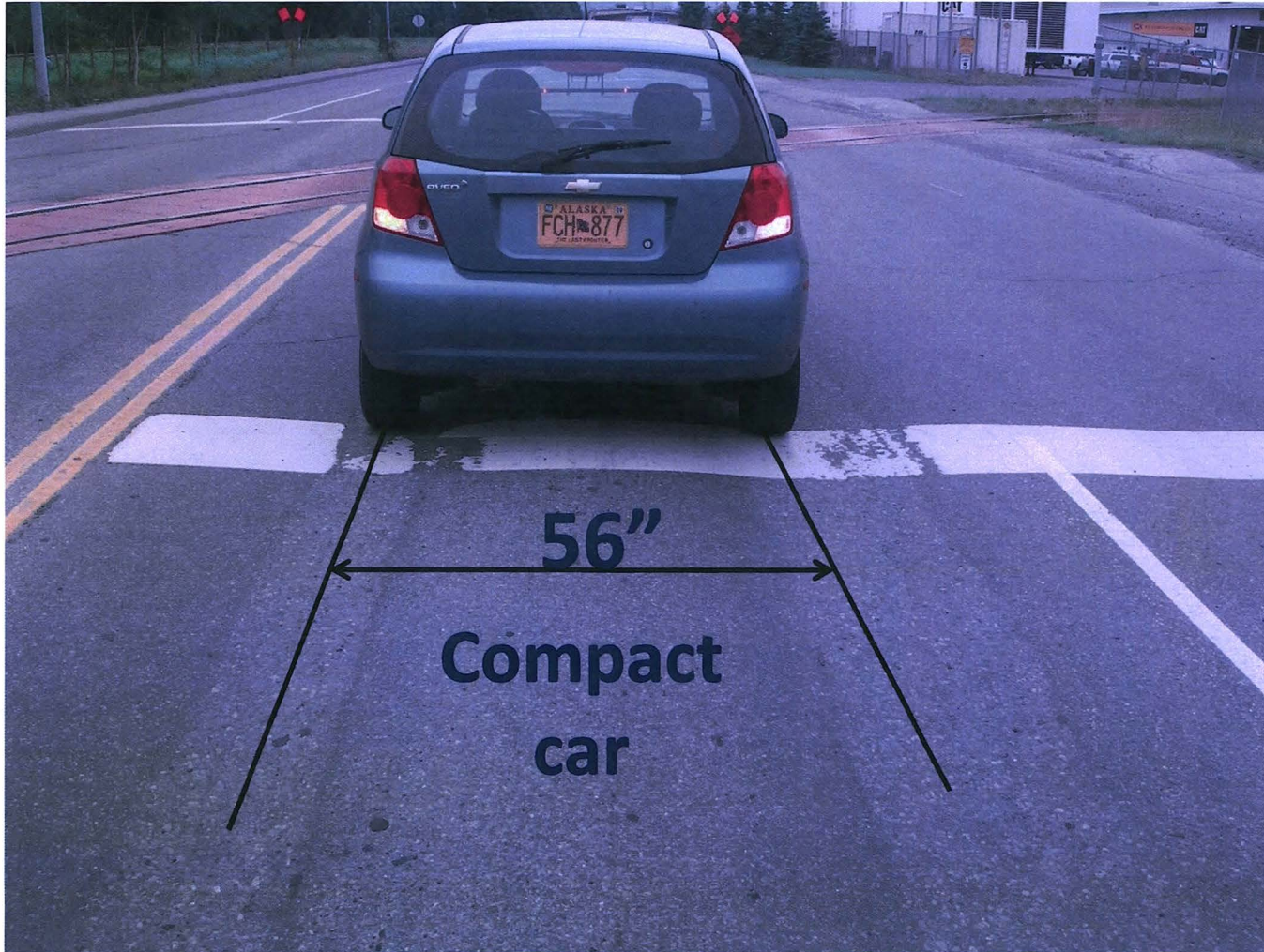
## Examples include:

- **Glenn Highway** (Anchorage area)
- **Seward Highway** (Anchorage area)
- **Minnesota Drive** (Anchorage)
- **Egan Drive** (Juneau)

# Rutting Evidence caused by Studded Tire

Ruts fit wheel path of passenger vehicle

Arctic Blvd., Anchorage, August 5, 2008



# Pavement Sampling

## Eagle River Loop Road

13,000+ vehicles/day

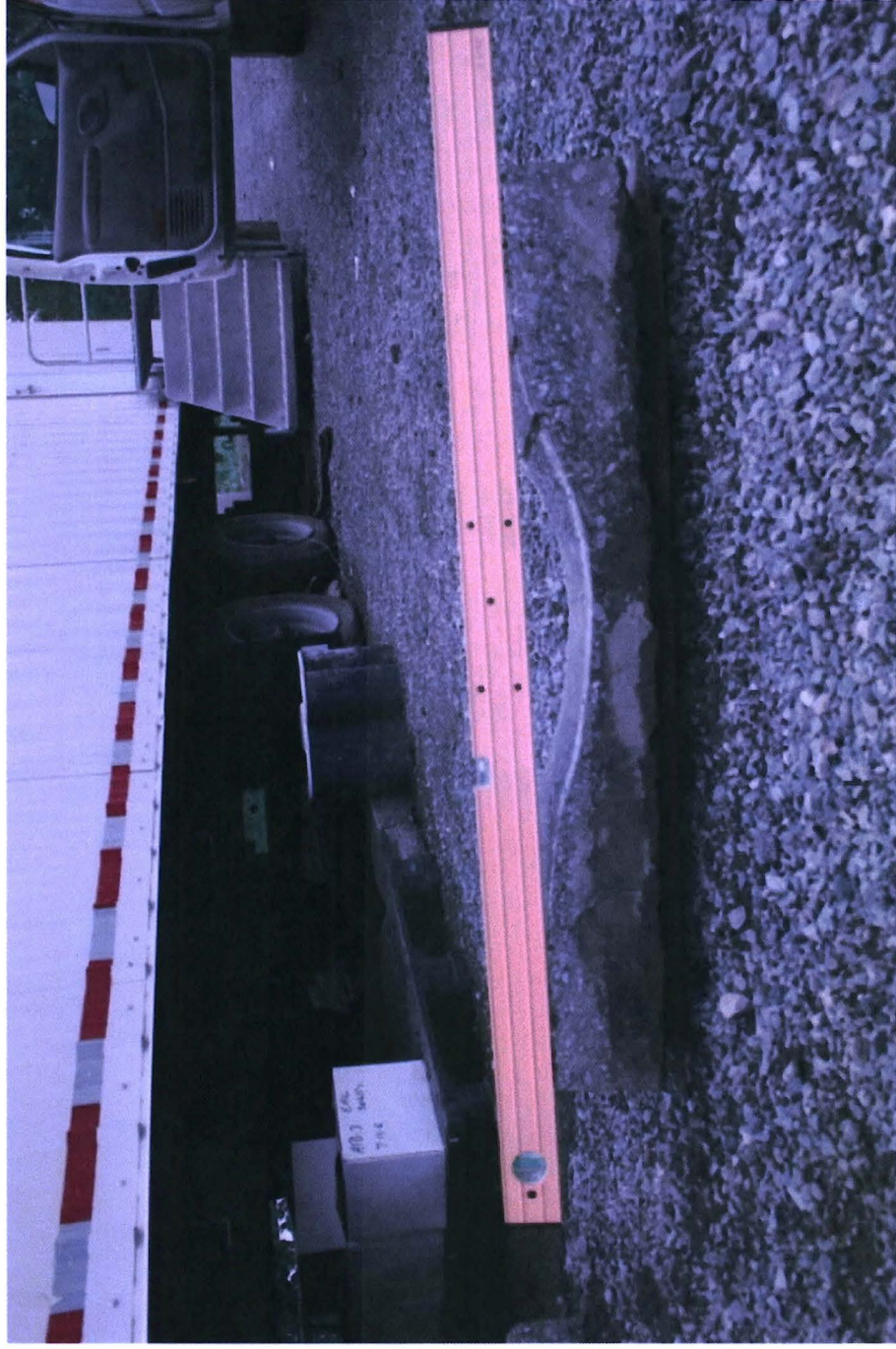
July 29, 2008



# Eagle River Loop Road

13,000+ vehicles/day

July 29, 2008





# Safety and Environmental Issues

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- Ruts become a **Safety Hazard** to the travelling public:
  - **Icy road:** Ice or snow in ruts causes additional loss of traction
  - **Dry road:** Difficulty steering and changing lanes
  - **Wet road:** Hydroplaning potential due to water in ruts
- **Studded tire use** on bare pavement generates dust, posing risk to human health
  - Based on this **human health risk**, Japan banned studded tires in 1990

# Addressing Rut Damage

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- **Rut Repair Trigger:** Rut depth of ½-inch triggers a project to address rut repair; usually a 2-year turnaround to bid-ready plans
- **Typical Fix:** Mill-and-Fill in travel lanes
- **Hard Aggregate Policy:** Stipulates the use of hard aggregate in the asphalt mix when the traffic volume exceeds 5,000 vehicles per lane in areas prone to stud use
- **Potential fixes, i.e., *Microsurfacing*,** a mix of aggregate, polymerized asphalt, and water that is used to fill the ruts using special paving equipment. Road is open to traffic in ~2 hours.

# Winter Driving

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- **Automobile Technology Improvements**
  - All-wheel drive
  - ABS braking
- **Tire Technology Improvements**
  - Tire composition and tread
  - Studless tires, e.g., X-Ice<sup>®</sup>, Blizzak<sup>™</sup>
  - Better all-season tires
- **Limited range of conditions in which studded tires outperform alternatives**

# TIRE COST COMPARISON

AMOUNT BASED ON COSTS FOR 2015 DODGE RAM 1500 17" TIRES 265-70-17

	Studded	Non-Stud (Blizzaks)	Difference
COSTCO	NO STUDS	\$895	XXXXXXXXXX
SAM'S CLUB	\$700	\$832	Stud \$100
LES SCHWAB (Juneau Only)	\$1,155.56	\$1,356.02	Stud \$200.46
ANCHORAGE TIRE FACTORY	\$1,050	\$830	Non-Stud \$220
ALASKA TIRE & RIM	\$829	\$809	Non-Stud \$20
MIDAS - (Artic Claw)	\$1,044.96	\$891.96	Non-Stud \$83
AIASKA TIRE SERVICE	\$717.80	\$883.80	Stud \$166
SEARS	NO STUDS	\$1,013.76	XXXXXXXXXX
AMERICAN TIRE	\$1,010	\$1,020	Stud \$10
ALYESKA TIRE	\$1,009.80	\$971.80	Non-Stud \$38
AMAZON.COM	\$756.00 (no install)	\$852.92 (no install)	Stud \$96.92
TIRE RACK	\$1,129.80	\$927.08	Non-Stud \$202.72
<b>AVERAGE COST:</b>	\$940.29	\$940.27	\$113.71

# SUMMARY: AN OVERVIEW OF STUDED AND STUDLESS TIRE TRACTION AND SAFETY

BY ROBERTY R. SCHEIBE – RESEARCH PROJECT AGREEMENT T2695, TASK 21 – 10/2002

**Abstract:** Studded tires have generated much controversy over the years; a number of states have banned them, while others have restricted their use and passed legislation to require lighter-weight studs. This report reviews recent studies that have addressed the performance and safety of the current generation of studded tires as well as the new “studless” winter tires on late-model vehicles. The well-documented correlation between studded tires and pavement wear was not the focus of this work.

The issues surrounding studded tire performance and safety are complex. From the standpoint of traction alone, studded tires, when new, often provide some benefit over other tire types on ice-covered roads when the temperature is near freezing. However, the advent of the new studless tires has diminished the marginal benefit, and recent studies suggest that the infrequent, narrow range of conditions necessary for benefit from studded tires may not outweigh their detrimental effect on traction in dry or wet conditions on certain pavement types. In addition, a host of primary and secondary safety factors are related to studded tire use, many of which are very difficult to quantify, including facets of driver behavior and safety perception.

**Conclusions:** 1. Studded tires produces their best traction on snow or ice near the freezing mark and lose proportionately more of their tractive ability at lower temperatures than do studless or all-season tires.

2. The traction of studded tires is slightly superior to studless tires only under an ever-narrowing set of circumstances, being clear ice near the freezing mark, a condition whose occurrence is limited. For the majority of test results reviewed for snow, and for ice at lower temperatures, studded tires performed as well as or worse than the Blizzak tire. For those conditions in which studded tires provided better traction than studless tires, the increment usually was small.

3. The precise environmental conditions under which studded tires provide a traction benefit are relatively rare. The maximum frictional gain (in comparison to non-studded (not studless) tires) is found for new studded tires on smooth ice, where they have been shown to provide up to 100% gain in certain tests. However, the relative frictional gain

of studded tires diminishes or becomes negative on roughened ice, as temperatures drop, as the studs wear, or if the comparison is made with studless tires.

4. The single best indicator of tire performance is braking distance and deceleration.
5. Studded tires may reduce the risk of drivers misjudging the necessary braking distance they need and may improve the braking potential for anti-lock brakes.
6. In one set of tests in Alaska studded, studless and all-season tires performed nearly equally on snow. On ice, stopping distances for studded tires were 15% shorter than for Blizzaks, which in turn were 8% shorter than for all-season tires.
7. In another set of tests in Alaska, studless Blizzak tires offered the best traction performance, especially for braking on both packed snow and ice in comparison to studded tires and all-season tires.
8. On bare pavement, studded tires tend to have poorer traction performance than other tire types.
9. Tractive performance of studded tires is sensitive to stud wear.
10. A Norwegian study concluded that the use of studded tires tends to reduce the accident rate by a small amount, being somewhere from 1% to 10%.
11. Drivers tend to behave differently when they use studded tires which affect their effectiveness. They either driver safer or more dangerous.
12. Pavement rutting caused by studded tires can cause the dangerous conditions of tramlining, hydroplaning, excessive road spray, and premature damage to pavement markings.
13. The use of studded tires by the public roughens ice and provides a net safety benefit for all vehicles (with or without studs) by helping to prevent the formation of smooth, glare ice.
14. The cost of studless tires is 50% higher than studded ones.
15. Studded tires increase fuel consumption by 1.2%, while unevenness, snow and ice increase fuel consumption by 15%
16. Suspended particulate matter from pavement dust created by studded tires and noise from studded tires are health concerns.

# SUMMARY: *REVIEW OF STUDED TIRES IN OREGON*

BY NORRIS SHIPPEN, MARIE KENNEDY, LANI PENNINGTON – ODOT – 12/2014

**Abstract** – This study provides an update on the Oregon Department of Transportation study conducted in 2000 on studded tires. The focus of this research paper was to quantify current use of studded tires and the wear and caused by use. Some results include a decline in studded tire use from about 16 percent of registered vehicles in 1995 to about 4 percent in the 2013-2014 winter season. The study found a wear rate for PCC (Portland Cement Concrete) of about 0.0091 inches per 100,000 studded tire passes, while the wear rate of asphalt pavement is about 0.0295 inches per 100,000 studded tire passes.

Three different cost categories of studded tire damage mitigation were identified. The three scenarios are included in this study, but the base case scenario for these estimates predicts an annual average expenditure of about \$4 million from the year 2012 up to the year 2022. These estimates are only for the State Highway System and exclusive of any amounts to be spent by the cities and counties on their road systems.

**Conclusions** – The Survey Research Lab at Portland State University assisted the Oregon Department of Transportation Research Unit in implementing a random household phone survey of Oregon residents. The purpose of the survey was to document studded and non-studded winter tires and winter travel behaviors of motorists driving in Oregon. The survey lasted 29 days, surveying a total of 1,944 people.

1. Research shows that non-studded winter tires perform as well or better than studded tires in almost all winter driving conditions.
2. The use of studded tires in Oregon has declined since the previous survey in 1995.
3. In 1995, many people only put studded tires on one axle, today most people put studded tires on both.
4. Wide ranges of wear rates were found for various sections of PCC and asphalt pavements. This reflects the many factors that contribute to

- pavement rutting susceptibility. PCC is more resistant to rutting than asphalt. Within the asphalt pavements, there was no obvious advantage of open-graded mixes over dense-graded mixes. The PCC wear rate is about 0.0091 inches per 100,000 studded tire passes, while the wear rate of asphalt pavement is about 0.0295 inches per 100,000 studded tire passes.
5. An estimate of the total pavement damage – damage sufficient to reduce the useful pavement life – indicates that mitigating damage caused by 2012 studded tire traffic will cost over \$8.5 million for the state highway system. This is the base pavement life case scenario among three different estimates ranging from \$5.8 million on the low side to a maximum of \$11.3 million.
  6. Expenditures for repairing studded tire damage for 11 years were projected to total around \$44.2 million by 2022. This estimate represents the base pavement design life. The three scenarios of short, base, and long pavement life range from \$26.8 million up to a high of \$64.4 million. All estimates are for the state highway system alone.
  7. Considering studded tire alternatives and popularity of all-wheel and four-wheel drive vehicles, studded tire use and the resulting damage of the pavements is expected to continue to decline while pavement life is expected to remain constant. Going forward, it seems that the most plausible scenario for the 11-year expenditure will be the base scenario of \$44.2 million.

# SUMMARY: *STUDED TIRES IN OREGON – AN ANALYSIS OF PAVEMENT WEAR AND COST OF MITIGATION*

BY MAZEN G. MALIK – OREGON DEPARTMENT OF TRANSPORTATION – 12/2000

**Abstract** – This study examines the effects of studded tires on Oregon highways and quantifies the degree by which studded tires cause pavement damage. In addition to the rate of rutting, this study examines several categories of costs that result from studded tire use.

Wide ranges of pavement wear rates were found for various sections of PCC (Portland Cement Concrete) and asphalt pavements. PCC is more resistant to rutting than asphalt. Within the asphalt pavements, there was no obvious advantage of open-graded mixes over dense-graded mixes. The PCC wear rate is about 0.0093 inches per 100,000 studded tire passes, while the wear rate of asphalt pavement is about 0.0386 inches per 100,000 studded tire passes.

From 1995 to 2005, the expenditure projection for mitigating studded tire damage was \$7 million annually. It is also useful to keep in mind Oregon primarily uses PCC rather than asphalt.

## **Conclusions** -

1. Studded tires improve the braking, traction and cornering performance of vehicles on icy surfaces. The improved handling can be offset by a slight increase in driving speed. Researchers tend to find conflicting results regarding the net safety effects of studded tires.
2. Wide ranges of wear rates were found for various sections of PCC and asphalt pavements. This reflects the many factors that contribute to pavement rutting susceptibility. PCC is more resistant to rutting than asphalt. There was no obvious advantage of open-graded mixes over dense-graded mixes regarding asphalt pavements.
3. An estimate of the total pavement damage caused by studded tires in 1995 indicates a mitigation cost of about \$30 million for the state highway system and \$20 million for county and city roads. This \$50.2 million estimate is the base case between a low of \$30.7 and a high of \$69.8 million.

4. Expenditures for repairing studded tire damage for 11 years were projected to total around \$103 million by 2005. Estimates are for Oregon's state highway system alone.
5. An increased use of lightweight studs may reduce annual expenditures by as much as 1/2 and as little as 1/3.

The main conclusion of this study is that studded tire use, regardless of its other benefits, inflicts certain amounts of damage to Oregon road systems.

Steps taken to reduce the effects of studded tire damages include require the studs sold in Oregon to be of the lightweight varieties. This change was said to spare Oregon between 43% and 29% of the costs of repairing studded tire damage. In addition, shorting the studded tire season will further reduce damage. Finally, the inclusion of the new soft-rubber tires in the traction tires class will also reduce damage.

Another strategy recommended is implementing a studded tire tax, or user fee. The paper states that if taxes are too high it might stimulate the sales of tires to out of state suppliers who do not have to comply with the proposed taxes. This would leave mitigation costs unpaid for, while the damage persists unaffected.

A third alternative is to establish a program of studded tire permits. Enforcement and logistical details need to be explored further.

The fourth alternative is a "do nothing" approach. Mandating lightweight studs and shortening the stud season have already contributed to reduce the damage. Further innovations will solve the problem.

# SUMMARY OF REPORT

SOCIO-ECONOMIC EFFECTS OF STUDDED TIRE USE IN ALASKA – ZUBECK 2004

**Abstract:** “The use of studded tires seems to have a positive impact on the overall Alaskan economy. The savings from avoided crashes are the most substantial impacts and benefit the broadest range of groups including the state government, vehicle owners, passengers, and insurance companies (and their policy holders”

“Test results show studded tires provide on average better traction on ice than non-studded friction tires. On snow or wet pavement there are no significant differences. Alternative to winter tires, chains and special equipment are currently not practical for Alaska”

**Regulatory Overview:** “Six states (Colorado, Kentucky, New Hampshire, New Mexico, Vermont and Wyoming) allow virtually unrestricted use of studded tires on state roads and highways. 36 states all studded tires but restrict their use seasonally, geographically or through equipment specifications. 7 states prohibit use of studded tires (though only one receives snow/ice).

“Studies in Finland and Japan found that prohibiting studs produces a net increase in total costs.”

- “ Pavement repair costs are greatly reduced, but costs of accidents plus the increase requirement of surface applications to improve surface traction (e.g. sand, salt, gravel) result in an overall increased financial burden at the state level”
- These studies have led to legislation that continues the use of studded tires, but limits that use to lightweight studs to minimize adverse effects.

**Air Pollution:** Road dust particles produced by studs are unhealthy, leading Japan to ban them after a study was performed addressing health costs. No adverse effects to human health if studded tires are banned. Any reduction in particulates would be offset by an increase in the volume of dust from surface applications (sand, salt)

**Traffic Safety:** Banning stud usage increases the overall cost despite savings in road maintenance. The relationship between rutted pavement and hydroplane accidents still needs to be evaluated. Studded tires reduce accidents by 5%.

**Pavement Wear:** Studded tires wear pavement surface and cause rutting. Rutting is also caused by plastic deformation due to heavy vehicles, though studded tires do the most damage.

-Nordic Countries report that they have significantly reduced the costs related to pavement wear caused by studded tires. They did this by implementing wear resistant pavements, less aggressive studs and strict enforcement of seasonal usage.

## **Recommendations:**

Apply wear resistant asphalt mixtures

Mandate the use of lightweight studs

Reduce speed limits during the winter on high traffic roads

## **1.2 Problem Statement Summary**

Studded tires are proven to wear pavement surfacing, causing ruts which cause accidents. Rutted pavement needs to be rehabilitated. Studded tires may also cause health risks to community in the dust they produce, which can be inhaled and bring about respiratory problems in sensitive population groups (elderly, children, sick)

### **3.3.3 Japan**

Economic evaluation of Japan's studded tire ban, done 10 years after the ban went into effect, found that regulation was successful in reducing road dust and in limiting noise pollution.

It also found that the reduction in studded tire use led to an increase in cost of approximately \$137 million (Asano 2002).

- This can be attributed to increase in traffic accidents, however road users incurred the majority of these costs.
- The recommendations made was not to remove the studded tire ban, but improve road surface maintenance and transportation policies.

## **3.4 Studded Tire Policy Decisions**

- In a study on studded tire pavement effects in Oregon, they found that a combined approach of lightweight studs, a reduction in the time permitted for stud use, and a user fee structure to recoup pavement damage costs would provide a balanced and effective studded tire policy.

## **4.3 Contribution of Studded Tires to Roadway Dust**

- Alaska DOT estimates highway damage from studded tire use in Alaska to be \$5 million annually. Calculated for inflation, this would cost **\$8,097,402.16** in 2017.

- Dust in Alaska does not reach unacceptable levels.

### **4.7.1 Wear-resistant Asphalt**

- General agreement that the installation of wear-resistant pavement substantially reduces the amount of road dust and road damage caused by studded tires.

## **5.6 Conclusions and Recommendations**

All studded tires sold should only be lightweight studs.

## **5.7 Executive Summary**

Pavement repair costs resulting from pavement wear caused by studded tires is a significant problem to the state of Alaska.

Although pavement repair costs are significant, accident costs are the overwhelming factor in economic analyses of studded tire effects.

Motivating factors for restrictions on studded tires were pavement wear and air pollution.

Drivers using studded tires behave differently than drivers without.

Few published studies available that address a relationship between rutted pavement and hydroplaning accidents.

#### **8.4 Avoided Crash Costs**

According to a compilation "meta" study, studded tires reduce accident rates by 1 – 10%.

Insurance companies benefit the most from studded tires, followed by the state and federal government because of cost savings from accidents needing expensive emergency services.

Kari,

An **approximate** low-end estimate to do a 2-inch mill and 2-inch fill is \$500K - \$550K per lane mile. Hope that helps.

**Mike Lesmann**  
Legislative Liaison  
Department of Transportation & Public Facilities

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Good afternoon Kari,

It is the typical 90% fed / 10% state match funding that finances work like this. At ½" we start designing a repair; at ¾" action is required.

Kind Regards,

**Mike Lesmann**

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Kari,

Your below email was forwarded to me to respond to the questions regarding the tire fee. You asked two questions regarding the fees:

1. Does the studded tire user fee apply to the installation of studded tires or just the purchase of new studded tires?

The current studded tire fee applies to both the sale of new studded tires as well as to the installation of studs on new or used tires. AS 43.98.025(b). The fee is in addition to the new tire fee of \$2.50. So, if I purchase a new studded tire, I would pay a total of \$7.50 (\$2.50 for the new tire and \$5.00 for it being studded). If I take in my used tires and have them studded, I would only pay the \$5.00 studded tire fee.

2. Do you know how much revenue was generated last year from the studded tire user fee?

Revenue from studded tires and stud installations was \$379,326 in FY16, \$373,883 in FY15, and \$324,771 in FY14.

Please let me know if you have any further questions.

Thanks,

**Brandon Spanos**  
Deputy Director  
Alaska Department of Revenue, Tax Division  
550 W 7th Ave, Ste 500  
Anchorage, AK 99501-3566

---

Hi Kari,

Most Trooper vehicles use studded tires. Some, mainly in the Fairbanks area, use Blizzak tires.

Please let me know if you need more specific numbers.

Best,

Allison

Allison Hanzawa  
Special Assistant to the Commissioner/Legislative Liaison  
Department of Public Safety

## INFRASTRUCTURE FOR ALL ALASKANS

Alaskans think about infrastructure a little bit differently than the rest of the United States. Alaska's infrastructure is truly unique, covering a vast area of over 663,000 square miles and supporting a population of just over 730,000. For transportation systems, there is no one mode of transport in Alaska, and sometimes the route is different depending on the time of year. Some homes do not have access to indoor plumbing, and while sometimes that's by choice, too often it's not. Many of Alaska's remote communities are still in need of water and wastewater systems that are safe, efficient, and sustainable, while even our most populated areas are still learning how best to handle every day solid waste in a subarctic environment.

Alaska's infrastructure investment is crucial to our way of life and the success of the economy. With declining oil prices and uncertain federal funding unable to keep up with the demand for projects or the operations and maintenance needs of current systems, the American Society of Civil Engineers (ASCE) Alaska Section wants to ensure Alaska's leaders have the best information available about the current conditions of Alaska's infrastructure. As Alaska legislators address budget challenges, the ASCE Alaska Section's Report Card – developed for Alaska, by Alaskans – demonstrates the importance of infrastructure investment.

There are solutions to Alaska's infrastructure poor grades! Together with the information provided in the Report Card for Alaska's Infrastructure, it is ASCE Alaska Section's goal that Alaska's Civil Engineers work together with state leaders to plan, design, build, operate and maintain a safe, efficient and sustainable infrastructure for all Alaskans.

## RAISING THE GRADES

### 4 KEY SOLUTIONS

- 1. Have a Plan and Fund for the Future:** All infrastructure owners and operators create and fund capital replacement plans for both immediate and long-term needs.
- 2. Maintenance is Key for Alaska:** Maintenance is the everyday work that has to be done to keep things moving, and Alaska's infrastructure needs it. Sometimes it's all about the basics, and maintenance is the basic first step to good infrastructure. Maintenance need to be a consideration in design, as maintenance cost often is the largest ownership cost.
- 3. Keep Up Infrastructure Improvement Efforts:** Elected officials must lead the efforts to improve Alaska's infrastructure for today and in the future. Alaska has some challenging times ahead, but kicking the can down the road will only cost Alaskans more in the future.
- 4. Innovate As We Replace:** Alaska should support and encourage innovative solutions to infrastructure funding. The key to keeping up with rising needs is to keep replacing failing infrastructure with longer lasting, more resilient and smarter solutions.

## **Background on ASCE's Infrastructure Report Card Program**

In 1998, the American Society of Civil Engineer's published the first Report Card for America's Infrastructure (Report Card). Using a simple A to F school report card format, the Report Card provides a comprehensive assessment of current infrastructure conditions and needs, both assigning grades and making recommendations for how to raise the grades. An Advisory Council of ASCE members assigns the grades according to the following eight criteria: capacity, condition, funding, future need, operation and maintenance, public safety, resilience, and innovation.

## **ABOUT ASCE - ALASKA**

Civil engineers are entrusted by society to create a sustainable world and enhance the global quality of life. We are committed to maintaining and improving Alaska's infrastructure. Founded in 1951, the Alaska Section of the American Society of Civil Engineers (ASCE) represents about 850 civil engineers in Alaska. We understand that infrastructure is vital to our economy, health, and natural environment. With our commitment to serve and protect the public in mind, civil engineers throughout the state graded each infrastructure category according to the following eight criteria: capacity, condition, funding, future need, operation and maintenance, public safety, resilience, and innovation.

## **Report Card for Alaska's Infrastructure History**

Members of the Alaska Section of ASCE have tried to prepare a report card for Alaska's infrastructure for over five years. Unfortunately, we never achieved full momentum, and it stalled several times. We finally had a group of dedicated engineers who were driven to complete the report card in 2016. Alaska's report card is complete, and we will have a formal launch on February 7th, in Juneau. At that time, the grades for nine categories of infrastructure will be released.



# ROADS

C-

## What You Should Know about Alaska's Roads

### State Highways and Roadways

Alaska's roadways, although very limited in total miles compared to most states, are vital to the economic growth and development of the state. The Alaska Department of Transportation and Public Facilities maintains 5,609 centerline miles of highways, 3,737 of which are paved. The highway system provides connectivity for freight and travel from the lower 48 states through Canada into Alaska, and from Alaska's economic hub, Anchorage, to communities across the state. Alaska, having some of the richest and most productive oil fields in the country, requires transport of equipment and infrastructure to the oil fields on the North Slope of Alaska. The 414 mile Dalton Highway (Alaska Route 11) is the only highway that connects Alaska's North Slope oil fields to the rest of the state, and shutdown of this highway for maintenance or due to catastrophic events has major effects on Alaska's economy, and affects the production and price of oil. Other major highways include the Alaska Highway, Seward Highway, Glenn Highway, Parks Highway, and Richardson Highway, which are corridors that provide connectivity throughout the central and northern part of the state.

### Municipal and Borough Roadways

Municipal and Borough Roadways are typically a mixture of paved and unpaved roads in Alaska's hub towns and cities. Many of these areas are a mixture of state and municipal or borough owned roads, and are maintained by state and local governments. These towns and cities are the main population centers spread across the state where goods are typically shipped to in order to reach villages by road and air. Many of these areas contain populations over 1,000 people.

### Village and Rural Roadways

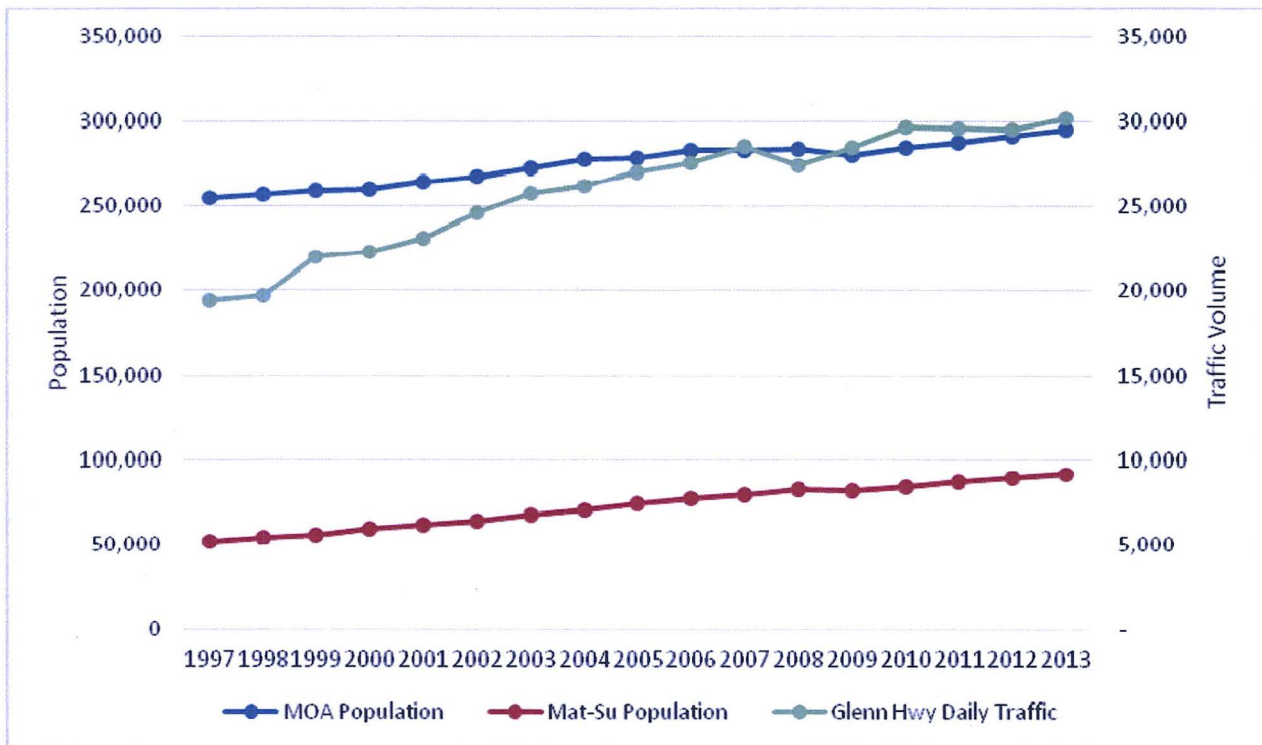
Village and Rural Roadways consist mainly of unpaved roads, walkways, trails, and boardwalks in areas outside of Alaska's hub towns. These areas contain populations of less than 500 people and the local roadway facilities are typically maintained by local village governments and regional native corporations. The roads, walkways, trails, and boardwalks in these areas are of importance to locals because they serve as routes to local hub towns, medical facilities, schools, and routes to subsistence hunting and fishing locations. Villages located north of the Arctic Circle and Western Alaska are built on permafrost which experience thawing and melting in the summer months. These conditions make it unsustainable and cost prohibitive to build conventional roadways due to rapid deterioration. Many of these villages are connected by a series of boardwalks that are accessible by pedestrians, four-wheelers (all-terrain vehicles), and snow machines (snow mobiles).

## Capacity

# ROADS



Alaska has the lowest population density in the country, 1.3 people per square mile, and because of this there is low traffic congestion outside of its population centers. However, Anchorage contains nearly 40% of the state's population, causing the Municipality of Anchorage (MOA) and the nearby Matanuska-Susitna Borough (MSB) to experience the heaviest traffic in the state. These areas have the highest population densities across the state. The MOA and MSB have experienced steady population growth over the last decade, which have contributed to capacity issues in the area. The figure below shows increasing traffic volume (vehicles per day) along the Glenn Highway which connects the borough and the municipality, in conjunction with population growth in Anchorage from 1997 to 2013. Several intersections in Anchorage experience Level of Service E and F, which are the highest congestion designations, during peak AM and PM traffic.



Source: US Census American Community Survey 5-year Estimates, Status of the System Report 2010, Volumes from DOT & PF Annual Traffic Volume Reports

The Anchorage Metropolitan Area Transportation Solutions (AMATS) have identified several projects which will make improvements to the Road System, Public Transportation, Pedestrian and Bicycle Systems, and Freight



# ROADS

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Distribution and Regional Connection Elements. Many of the projects highlighted in the AMATS plan are currently underway, however, in order to keep up with a rate of 1-3% increase in population growth per year, the AK DOT&PF, Municipality of Anchorage, and Matanuska Susitna Borough will continue to require investing in the projects highlighted by the study.

## Condition

In 2013 the Alaska Department of Transportation & Public Facilities released Alaska’s Pavement report. The report is an evaluation of approximately 4,100 lane-miles of Alaska’s highways in order to come up with a comprehensive score of the condition of the state’s pavement. The evaluation includes several data points that are entered into the Performance and Economic Rating System (PERS) software. These data points include:

- General sectional information, such as numerical identification, number of lanes, road classification, pavement type, functional class, etc.
- Traffic data (vehicles per day) and equivalent axle loadings.
- Structural data showing materials and thicknesses forming the support system of the roadway.
- Surface data with rutting and with IRI (International Roughness Index) indicators used to calculate remaining life.
- Modeling information allowing the engineer to account for varying conditions by modifying the formulas.
- Past construction and maintenance data.

**PSR Ratings Guide**

>4.0	Very Good
<4.0 > 3.5	Good
<3.5 > 3.1	Fair
<b>3.4</b>	<b>2017 Statewide Goal</b>
<3.0 > 2.6	Marginal
<2.6	Poor

Using these data points the PERS software calculates a Pavement Serviceability Rating (PSR) for each roadway segment evaluated and a comprehensive PSR for all roadways evaluated. The rating system assigns a score between 0 (very poor) and 5 (excellent). The evaluation resulted in a cumulative PSR of 3.1, which is Fair, however just above a Marginal rating. This result was mainly affected by irregularities in the pavement including cracks, potholes, and frost heaves.



## ROADS

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The department is currently developing the 2016 Alaska Pavement Report, at the time of this publication the report was not yet available.

### Operations and Maintenance

Maintaining roadways in Alaska is very challenging due to many factors that are not commonly experienced in many other states. Extreme weather conditions, with temperature that range from  $-60^{\circ}$  in winter to  $100^{\circ}\text{F}$  in summer, areas where snow can average over 200" per year that are prone to avalanches, and temperate rainforest locations that average over 150" of rain per year, create conditions that are ripe for pavement wear. From October through April it is legal for drivers to use tires with studs for traction in snowy and icy conditions. The use of studs causes rutting, which are a longitudinal grooves along the wheel path, over a period of time, which significantly decreases the life of the pavement and the ride quality. Many roadways in middle and northern Alaska are built on permafrost, which is a thin layer of soil over several feet of ice. With the average temperatures across Alaska on the increase, this is causing the melting of permafrost, which causes roadbeds in these areas to fail. The melting and freezing of permafrost and subsurface water cause an effect called "Frost-Heaving" which is characteristic of large vertical deviations, bumps and dips, which can be very dangerous for drivers and cause very poor ride quality. Many of Alaska's highways are in remote locations that are hundreds of miles from the nearest cities which make them difficult to access by maintenance and construction crews. These factors combined make each road mile in Alaska significantly more expensive to construct and maintain in comparison to a road mile in most other states. With significant budget cuts planned at the state level it will become increasingly difficult to maintain rural roads.

### Public Safety

The AK DOT&PF has adopted the Alaska Strategic Highway Safety Plan (SHSP) which involves a multi-disciplinary approach to improving public safety on state roadways: Engineering, Education, Enforcement, and Emergency Medical Services. The goal of the plan titled *move Toward Zero Deaths*, is to significantly reduce roadway fatalities by half by 2030 and eventually eliminate roadway fatalities.

In an analysis performed in 2013 of the SHSP it has been noted that Alaska has achieved improvements in public safety on highways, but there still remains room for improvement. The three-year average of fatalities on highways were consistently on the decline until 2013. Since 2013 there has been a 40% increase in fatalities. The three-year average of serious injuries has risen which does not meet the 3.1% reduction per year desired in the plan.

In order to achieve reductions in fatalities and improve on reductions in serious injuries the department is focusing on three areas of emphasis with strategic initiatives to ensure targets are met.

#### Driver Behavior



# ROADS



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1. Strengthen enforcement programs related to driving violations.
2. Improve the prosecution and adjudication of all driver violations.
3. Educate drivers to be responsible.

## Roadways

1. Implement education/awareness programs to enhance roadway safety.
2. Implement engineering programs to enhance roadway safety.
3. Implement improvements to EMS to enhance roadway safety.
4. Utilize data and electronic information programs to enhance roadway safety.
5. Implement HSIP-qualified strategies.

## Special Users

1. Implement education/awareness practices to enhance bicycle, pedestrian, motorcyclist, and OHV safety.
2. Implement engineering programs to enhance bicycle, pedestrian, motorcyclist, and OHV safety.
3. Implement evaluation programs to enhance bicycle, pedestrian, motorcyclist, and OHV safety.

## Funding

According to the Statewide Long-Range Transportation plan, the DOT&PF does not currently have sufficient funding in order to preserve the existing transportation and for future development. Without an increase in state revenue, funding is not expected to increase in the near term due to sustained low oil prices. The State of Alaska experienced a \$3 billion budget deficit in 2016, which has been referred to as Alaska's worst economic recession since the 1980's. The budget deficit has triggered law makers to make significant cuts to state programs, including reducing budgets maintenance and operations for the DOT&PF. In June 2016 Governor Walker vetoed \$250 million in highway construction spending, which put a pause on 8 highway projects around the state. In December, 2015 the Fixing America's Transportation Infrastructure (F.A.S.T.) Act was signed into law, which allocated \$2.6 billion to Alaska for highway preservation and improvement projects. The F.A.S.T. act is expected to add nearly \$555.3 million per year in highway spending through 2020 which will offset a portion of the significant cuts that are being planned at the state level.



# ROADS



## Innovation

In 2009 the AK DOT&PF released its *iways* architecture, which is an innovative plan to improve efficiency, safety, and reliability of the state's transportation system by implementing Intelligent Transportation System (ITS) technologies. The department has been implementing projects throughout the state which include advanced communication, information processing, and computer hardware and software. These projects include 511 Traveler Information, Automated Vehicle Identification (AVI), Roadway Weather Information System (RWIS), and Traffic Signal Electronics Modernization. The current draft of the Statewide Long Range Transportation Plan includes policies that will continue support of the *iways* architecture in order to continue to use and implement new technologies that will improve efficiency and effectiveness.

## Resilience

A limited study was conducted by FHWA in 2016 regarding Alaska's resilience to climate change, which highlighted case studies of three events that resulted in infrastructure damage which was linked to a changing climate. The study concluded that in many areas, due to sparse population, cost cannot be considered into the traditional benefit-cost analyses and broader factors of concern need to be taken into account to reflect appropriate response measures.

The current draft of the AK DOT&PF's Long Range Transportation Plan (LRTP) includes a risk-based analysis of trends affecting transportation system performance, which highlight climate change, earthquakes, natural disasters, and extreme weather events as having a high likelihood of affecting transportation infrastructure and increasing cost in the future. The plan includes policies that take these events into consideration in the project development phase in order to improve system resiliency.

## Let's Raise the Grade

- Replace substandard roadways with pavement sections and materials that are more resilient to the extreme conditions.
- Construct new roadways with service life of the road as a priority, utilizing non-frost susceptible soils and strong pavements that can withstand the wear from the use of studded tires, frost heave, and melting tundra.
- **Focus a portion of funding toward projects that will ease congestion issues in the areas of the state that experience poor Level of Service.**
- **Continue to support efforts to improve public safety by minimizing roadway fatalities and injuries.**
- **Continue funding and implementation of innovative transportation infrastructure.**



ROADS

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## Find Out More

- [http://dot.alaska.gov/stwddes/desmaterials/assets/pdf/pavement\\_report\\_2013.pdf](http://dot.alaska.gov/stwddes/desmaterials/assets/pdf/pavement_report_2013.pdf)
- <http://dot.alaska.gov/iways/documents/iways-SummRpt.pdf>
- <http://dot.alaska.gov/stwdplng/areaplans/2030/assets/SWLRTPPfinal022908.pdf>
- [http://dot.alaska.gov/stwdplng/areaplans/lrtpp2014/docs/20160907\\_LRTP\\_policyplan\\_draft.pdf](http://dot.alaska.gov/stwdplng/areaplans/lrtpp2014/docs/20160907_LRTP_policyplan_draft.pdf)
- [http://dot.alaska.gov/stwdplng/shsp/assets/2013\\_SHSP\\_Revision\\_Final.pdf](http://dot.alaska.gov/stwdplng/shsp/assets/2013_SHSP_Revision_Final.pdf)
- <https://www.fhwa.dot.gov/fastact/estfy20162020apports.pdf>
- [https://www.fhwa.dot.gov/environment/climate\\_change/adaptation/resilience\\_pilots/2013-2015\\_pilots/alaska/fhwahep16088.pdf](https://www.fhwa.dot.gov/environment/climate_change/adaptation/resilience_pilots/2013-2015_pilots/alaska/fhwahep16088.pdf)
- [https://www.muni.org/Departments/OCPD/Planning/AMATS/Documents/CMP/2016/CMPFINAL\\_3316.pdf](https://www.muni.org/Departments/OCPD/Planning/AMATS/Documents/CMP/2016/CMPFINAL_3316.pdf)

## Closing comments from the Report Card Committee

The Report Card for Alaska's Infrastructure 2017, is a collaborative effort undertaken by the Alaska Section of the American Society of Civil Engineers (ASCE). This effort was made possible through the hard work of several of our members and also non-members.

Our Infrastructure is all too often taken for granted in our daily lives and we often fail to consider what it takes to ensure the infrastructure is constructed and maintained to meet the needs of our society and future generations.

During 2016 we have reviewed publicly available information on nine of our state's infrastructure systems, often had questions for the infrastructure owner's or our peers. All the time wanting to give an objective overview of our infrastructure we have relied heavily on public knowledge and the professional expertise of our peers and our own knowledge of the infrastructure we work with every day. This report card is the result of that effort.

We hope that this report card will give valuable insight in, and a better understanding of Alaska's Infrastructure.

Our vast and beautiful state offer many unique challenges to those providing the infrastructure necessary for our everyday lives. Our state would not be the great place to live, work and play without our infrastructure. Thank you to all that make that possible.

Through the whole process we have had valuable help, guidance and support from ASCE staff members including Brittney Kohler, Becky Moylan, and Carolyn Sofman; and the ASCE Committee on America's Infrastructure.

We also want to recognize the authors and many that offered their help in the writing of the report card. We sincerely apologize if we have failed to include anyone that helped in this effort. Any such omissions are completely unintentional. The following were the authors of the respective report card sections

**Airports.** Lead author Tor Anderzen, P.E., M., ASCE, Senior Aviation Engineer at HDL Engineering Consultants. Tor had much help from Rebecca Rauf, C.M. Aviation System Planner and Alexa Greene Western Area Planner at Alaska Department of Transportation and Public Facilities. Ori Miller EIT and engineering student at University of Alaska Fairbanks also provided much needed help with interviews of airport managers, and data gathering.

**Bridges.** Lead Author Leslie Daugherty, PE, SE, Senior Bridge Engineer at Alaska Department of Transportation and Public Facilities. She has much help from many of her peers within the Bridge Engineering division Alaska Department of Transportation and Public Facilities

**Dams.** Lead Authors Charles F. Cobb, P.E., State Dam Safety Engineer, Alaska Department of Natural Resources and Tor Anderzen, P.E., M., ASCE, Senior Aviation Engineer at HDL Engineering Consultants. With the help and assistance of Ben Wagner, State Dam Safety Engineer, Alaska Department of Natural Resources.

**Energy.** Lead Authors: Donald “Greg” Kinney, P.E., Project Engineer at **Alyeska** Pipeline Service Company and Ori Miller, EIT and engineering student at University of Alaska Fairbanks.

**Highways.** Lead Author: David Gamez, P.E., M.ASCE, Civil Engineer at CH2M. David had much help from Carolyn Moorehouse and Leslie Daugherty at Alaska Department of Transportation and Public Facilities.

**Alaska’s Marine Highway System.** Lead Author Tor Anderzen, P.E., M., ASCE, Senior Aviation Engineer at HDL Engineering Consultants. Tor had much help from Deputy Commissioner Captain Michael Neussl, System Planner, Christa Hagan, and Engineering Manager for Marine Facilities David Lowell, P.E., All of Alaska DOT&PF Alaska Marine Highway System. Much needed assistance was also provided by Rep. Sam Kito III, P.E. of Juneau and David Gamez, P.E., M.ASCE, Civil Engineer at CH2M.

**Ports and Harbors.** Lead Authors Carl Uchityl, P.E. Port Director, City and Borough of Juneau and Elizabeth Greer P.E. Senior Engineer, AECOM. Carl also had the assistance of many fellow port directors and harbor masters.

**Solid Waste.** Lead Authors: David Squier, P.E. Civil Engineer at Bristol Companies, Russel Porter, P.E. Civil Engineer at Stephl Engineers, and Christi Meyn, Civil Engineer at CRW Engineering Group, LLC.

**Water and Wastewater.** Lead Authors: Dan Nichols, P.E. Rural Engineering Director, WH Pacific, Stephen Nuss, P.E. Director Engineering Division at Alaska Water and Wastewater Utility, and Chris Bowman, P.E. Senior project engineer at HDL Engineering Consultants.

Many other members of ASCE were instrumental in the completion of this project, among them we especially want to recognize: Dale Nelson, P.E., F.ASCE, ASCE Region 8 Director; Jessica Smith AICP, Transportation Planner, Matanuska Susitna Borough; Jen Gillenwater, P.E. Project Engineer, Bristol Companies; Justin Kanouse, EIT, DOWL; and LaQuita Chimenowski, P.E. Enterprise Engineering, Inc.

For the report card committee

Greg Kinney, P.E.

Tor Anderzen, P.E.

## References

<sup>i</sup> A dam under state jurisdiction is defined in AS 46.17 as an artificial barrier that:

1. Has or will have an impounding capacity at maximum water storage elevation of 50 acre-feet and is at least 10 feet in height measured from the lowest point of the toe to the crest of the dam; or
2. Is at least 20 feet in height measured from the lowest point of the toe to the crest; or
3. Poses a threat to lives and property as determined by the department after an inspection. Artificial barriers with a Class I (high) and Class II (significant) hazard potential classification as defined in 11 AAC 93.157 are considered dams.

This definition of a dam is inconsistent with the definition used by the USACE for the NID, which contributes to inconsistencies between the state and federal databases.

<sup>ii</sup> History of AMHS, Alaska Department of Transportation and Public Facilities.

<http://www.dot.state.ak.us/amhs/history.shtml>

<sup>iii</sup> Ferry Field Guide, The 50<sup>th</sup> anniversary of the Alaska Marine Highway System. DOT&PF.

[http://www.dot.state.ak.us/amhs/doc/reports/school\\_stud\\_guide.pdf](http://www.dot.state.ak.us/amhs/doc/reports/school_stud_guide.pdf)

<sup>iv</sup> Alaska Marine Highway System, "Annual Traffic Volume Reports," Alaska Department of Transportation and Public Facilities, various years. <http://www.dot.state.ak.us/amhs/reports.shtml>

<sup>v</sup> Our Fleet, Alaska Marine Highway System, Alaska Department of Transportation & Public Facilities.

<http://www.dot.state.ak.us/amhs/fleet.shtml>

<sup>vi</sup> Annual Traffic Volume Report 2015, Alaska Marine Highway System. DOT&PF.

[http://www.dot.state.ak.us/amhs/doc/reports/atvr\\_15.pdf](http://www.dot.state.ak.us/amhs/doc/reports/atvr_15.pdf)

<sup>vii</sup> Annual Financial Report 2015, Alaska Marine Highway Fund. DOT&PF Dec 15, 2015.

[http://www.dot.state.ak.us/amhs/doc/reports/afr\\_15.pdf](http://www.dot.state.ak.us/amhs/doc/reports/afr_15.pdf)

<sup>viii</sup> *Let's get moving 2030*. Statewide Long-Range Transportation Policy Plan, Alaska Department of Transportation and Public Facilities. <http://dot.alaska.gov/stwdplng/areaplans/2030/index.shtml>

<sup>ix</sup> *Guiding Transportation Development for Alaska's Future*, Alaska 2036 Long Range Transportation Policy Plan, Alaska Department of Transportation and Public Facilities

<http://www.dot.state.ak.us/stwdplng/areaplans/>

<sup>x</sup> 2015 Shore Facilities Condition Survey Report. Alaska Marine Highway System. Southeast Region Marine Engineering Section, Alaska Department of Transportation and Public Facilities.

[http://dot.alaska.gov/project\\_info/AMHS\\_Shore\\_Fac\\_Report.shtml](http://dot.alaska.gov/project_info/AMHS_Shore_Fac_Report.shtml)

<sup>xi</sup> *Guiding Transportation Development for Alaska's Future*, Alaska 2036 Long Range Transportation Policy Plan, Alaska Department of Transportation and Public Facilities

<http://www.dot.state.ak.us/stwdplng/areaplans/>

<sup>xii</sup> *Let's get moving 2030*. Statewide Long-Range Transportation Policy Plan, Alaska Department of Transportation and Public Facilities. <http://dot.alaska.gov/stwdplng/areaplans/2030/index.shtml>

<sup>xiii</sup> Annual Financial Report 2015, Alaska Marine Highway Fund. DOT&PF Dec 15, 2015.

[http://www.dot.state.ak.us/amhs/doc/reports/afr\\_15.pdf](http://www.dot.state.ak.us/amhs/doc/reports/afr_15.pdf)

<sup>xiv</sup> Economic Impacts of Alaska Marine Highway System McDowell Group, Inc. January 2016.

[http://www.dot.state.ak.us/amhs/doc/reports/econ\\_15.pdf](http://www.dot.state.ak.us/amhs/doc/reports/econ_15.pdf)

<sup>xv</sup> Annual Financial Report 2015, Alaska Marine Highway Fund. DOT&PF Dec 15, 2015.

[http://www.dot.state.ak.us/amhs/doc/reports/afr\\_15.pdf](http://www.dot.state.ak.us/amhs/doc/reports/afr_15.pdf)

<sup>xvi</sup> AMHS Community Engagement Meetings, Alaska Department of Transportation & Public Facilities. Presentation, last revised December 4, 2015. [http://www.dot.state.ak.us/amhs/doc/reports/presentation\\_011516.pdf](http://www.dot.state.ak.us/amhs/doc/reports/presentation_011516.pdf)

<sup>xvii</sup> AMHS Community Engagement Meetings, Alaska Department of Transportation & Public Facilities. Presentation, last revised December 4, 2015. [http://www.dot.state.ak.us/amhs/doc/reports/presentation\\_011516.pdf](http://www.dot.state.ak.us/amhs/doc/reports/presentation_011516.pdf)

<sup>xviii</sup> Northern Economics Inc. Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System. Prepared for Alaska Department of Transportation and Public Facilities/Alaska Marine Highway System. April 2008.

<sup>xix</sup> Northern Economics Inc. Alaska Marine Highway System Tariff Analysis. Prepared for Alaska Department of Transportation and Public Facilities/Alaska Marine Highway System. January 2015.

<sup>xx</sup> *Let's get moving 2030*. Statewide Long-Range Transportation Policy Plan, Alaska Department of Transportation and Public Facilities. <http://dot.alaska.gov/stwdplng/areaplans/2030/index.shtml>

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<sup>xxi</sup> 2015 Shore Facilities Condition Survey Report. Alaska Marine Highway System. Southeast Region Marine Engineering Section, Alaska Department of Transportation and Public Facilities.

[http://dot.alaska.gov/project\\_info/AMHS\\_Shore\\_Fac\\_Report.shtml](http://dot.alaska.gov/project_info/AMHS_Shore_Fac_Report.shtml)

<sup>xxii</sup> 2016-2019 Statewide Transportation Improvement Program (STIP) State of Alaska Department of Transportation & Public Facilities. <http://www.dot.state.ak.us/stwdplng/cip/stip/assets/STIP.pdf>

<sup>xxiii</sup> Alaska Marine Highway System Analysis. Alaska University Transportation Center. February 2012.

[http://www.dot.state.ak.us/amhs/doc/reports/system\\_analysis.pdf](http://www.dot.state.ak.us/amhs/doc/reports/system_analysis.pdf)

Discussion paper

## Advanced studded tire technology and road wear

Alaska State Legislature  
Transport Committee  
Hearing 23<sup>rd</sup> Feb, 2017.

*Ref. Act relating to fees for the sale or installation of studded tires*

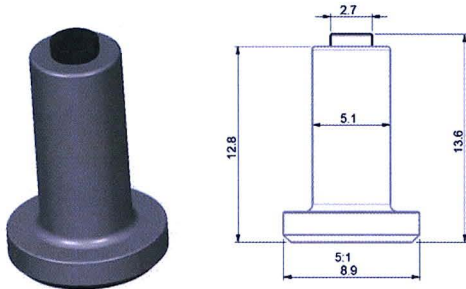
### Summary

Nokian Tyres, Inc. wishes to bring to discussion some facts regarding the proposed "Act relating to fees for the sale or installation of studded tires." **Nokian Tyres supports the original version of the bill (SB0050A) but disagrees with the amendment (SB0050B). The amended version does not take into account the following issues:**

1. Modern studded tires can reduce road wear by 60–75 % compared to the most commonly used studded tires on Alaskan roads.
2. The amended version of the bill would effectively lead to a situation where consumers would not be able to buy studded tires in Alaska in the future.
3. In icy conditions, modern studded tires clearly perform better than non-studded winter tires. Also, the overall performance of studded tires has been consistently better over 25 years in independent magazine tests.

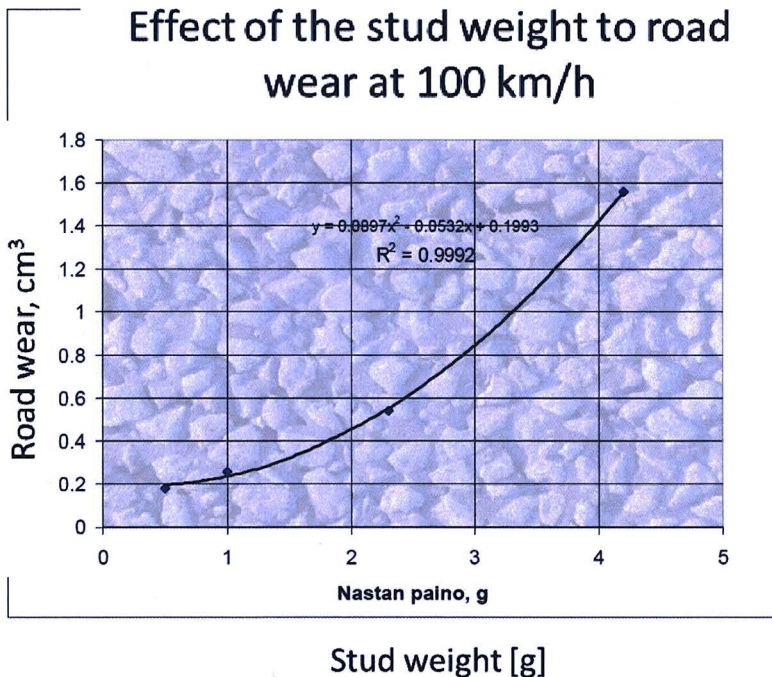
**1. Possibilities to reduce road wear with modern studded tires**

The studs commonly used in the Alaska region are conventional steel studs, pictured below. As an example a conventional TSMI #15 steel stud weighs 2.19 grams.<sup>i</sup>



Picture 1: Conventional steel stud TSMI #15 of total length of 13.6 mm

The weight of studs is an extremely important factor in road wear caused by studded tires. Road wear has been studied extensively in several countries, and the results demonstrate that road wear decreases in correlation with the stud weight. The first graph is from VTT Technical Research Centre of Finland.

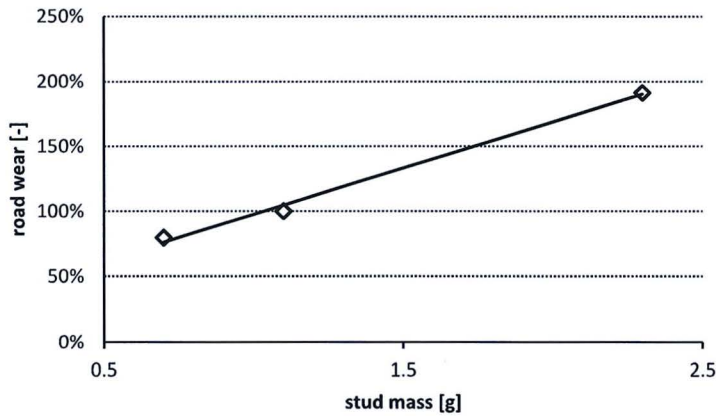


Graph 2: Road wear as a function of stud weight at 100 km/h (62.1 MPH)<sup>ii</sup>

As can be seen in the graph, the road wear caused by studs is significantly lower when the weight of the studs is 1.1 grams or below. In comparison to the conventional steel studs

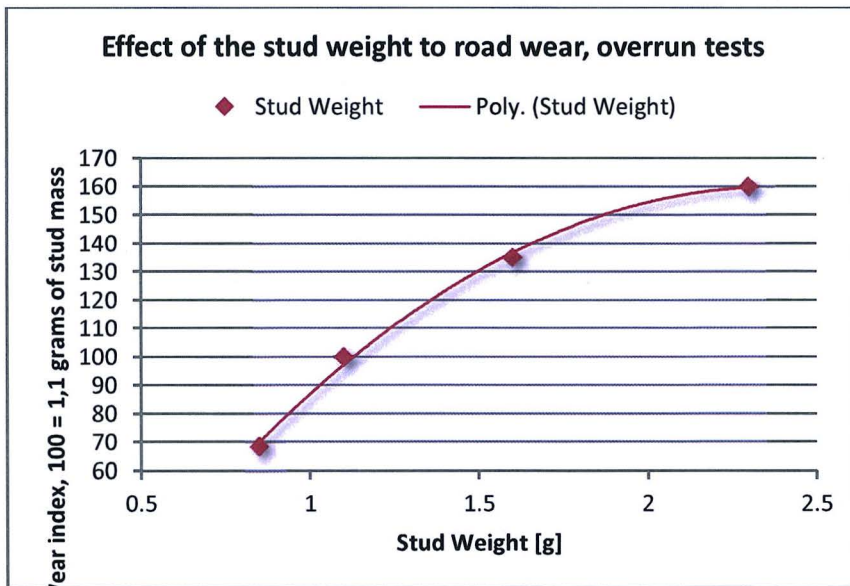
weighing 2.19 grams, the road wear can be reduced by 60–75 percent with the use of lightweight studs.

Karlsruhe Institute of Technology performed a similar test comparing studs of different masses. At their studies the effect of the stud mass on road wear was linear (Graph 2).



Graph 2: Effect of stud mass according to KIT (Karlsruhe Institute of Technology) Study<sup>iii</sup>

These tests, performed by independent research institutes, prove that lightweight studs cause significantly less road wear than the heavier types. Also, the tests performed by Nokian Tyres confirm the same findings (Graph 3).



*Graph 3: The effect of the stud weight to the road wear according the measurements of Nokian Tyres plc.*

The planned limit of 1.1 grams would bring the desired benefits of the bill, reducing road wear up to 75 percent. Reaching this limit would be technically possible with best available techniques.

To minimize road wear, other factors than studded tires should also be considered. For example, heavy trucks are known to have a significant impact on rutting roads particularly during spring thaw.

- ***Has the committee considered the impact of other factors that cause road wear, such as heavy trucks during spring thaw?***

## **2. Limit of 0.5 grams would effectively ban studded tires**

As stated above, Nokian Tyres supports the original version of the bill (SB0050A), but disagrees with the amendment (SB0050B). Below is a quote from the amended version, with new text underlined and deleted text bracketed:

In addition to the fee imposed under (a) of this section, a fee of \$50 [~~\$5~~] a tire is imposed on the retail sale in the state [ON OR AFTER JULY 1, 2004,] of tires for motor vehicles designed for use on a highway that are studded with metal studs or spikes weighing more than 0.5 [1.1] grams each embedded in the periphery of the tire surface and protruding beyond the tread surface of the tire, or on the installation in the state [ON OR AFTER JULY 1, 2004,] for a fee of metal studs or spikes weighing more than 0.5 [1.1] grams each on a tire for a motor vehicle designed for use on a highway.

Currently, it is technically impossible to manufacture studs that weigh less than 0.5 grams for use in passenger car and light truck tires. The fee would effectively push even the most modern studded tires with significantly lower effects on road wear out of the market, eliminating the potential fee collection. The original limit value of 1.1 grams would bring the benefits of decreased road wear without reducing traffic safety.

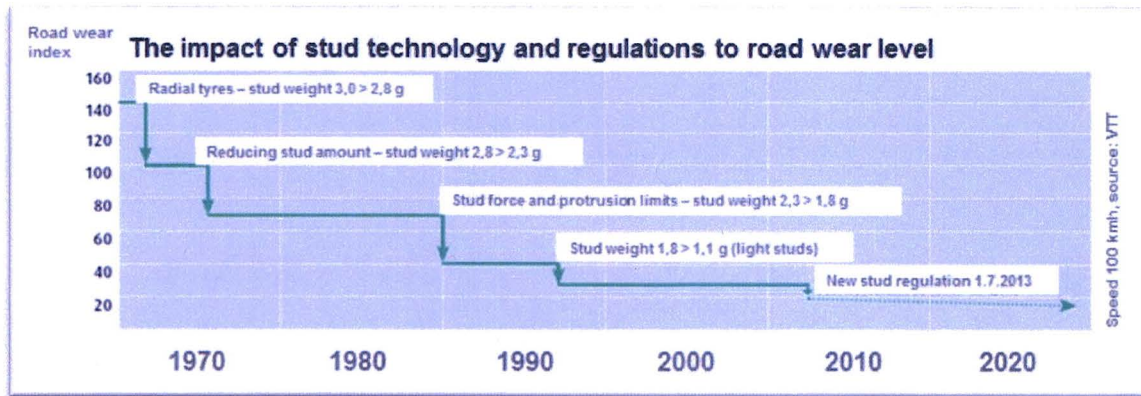
- ***Will increasing the studded tire fee so drastically effectively eliminate studded tires in the market, thus reducing funding to repair roads as the changes intend?***
- ***Have any studies been done to accurately measure ratio of consumers currently using studded tires on Alaskan roads?***

## **3. R&D continuously improves both studded and non-studded tires, but studded tires have clear advantages**

In the media discussion about the bill, it has been said that “consumers can choose studded tires or the new technology tires.”<sup>iv</sup> In fact, Nokian Tyres constantly invests in Research &

Development to develop both of these winter tire categories to become safer and more environmentally friendly.

In Scandinavia, the road wear effect of studded tires has steadily decreased since the 1970s. The improvement is due to tightened stud and winter tire regulations, which have given strong impetus to tire manufacturers' R&D departments to design studded winter tires that cause minimal road wear. The road wear effect has been decreased by reducing the weight of stud, reshaping the stud, inserting stud cushions and reconsidering where to place the studs on a tire.

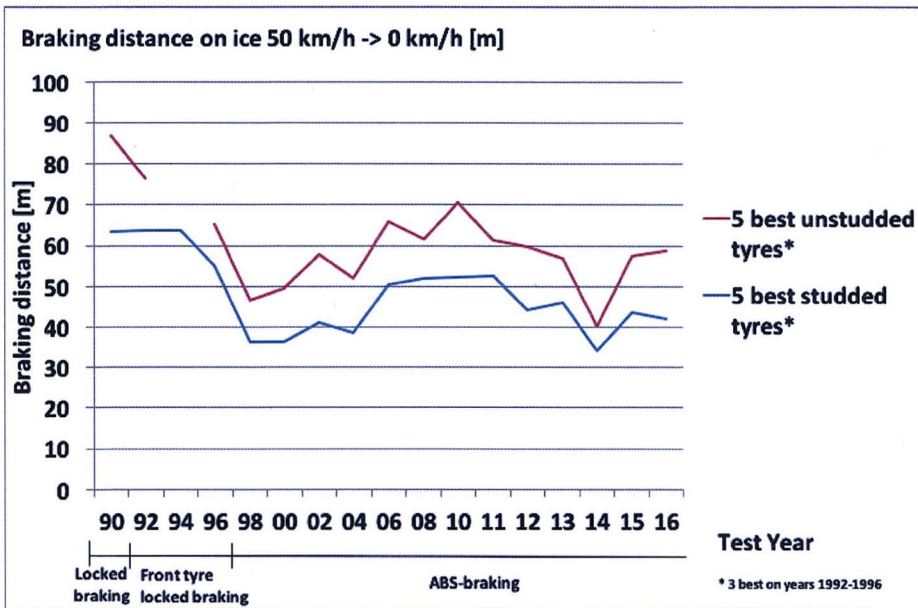


Graph 4: The impact of stud technology and regulations on road wear level in Finland

The impact of stud technology and regulations on road wear level in Finland can be seen in Graph 4. At the moment, the most commonly used studs in Alaska are the same as those used in Scandinavia in the 1980s.

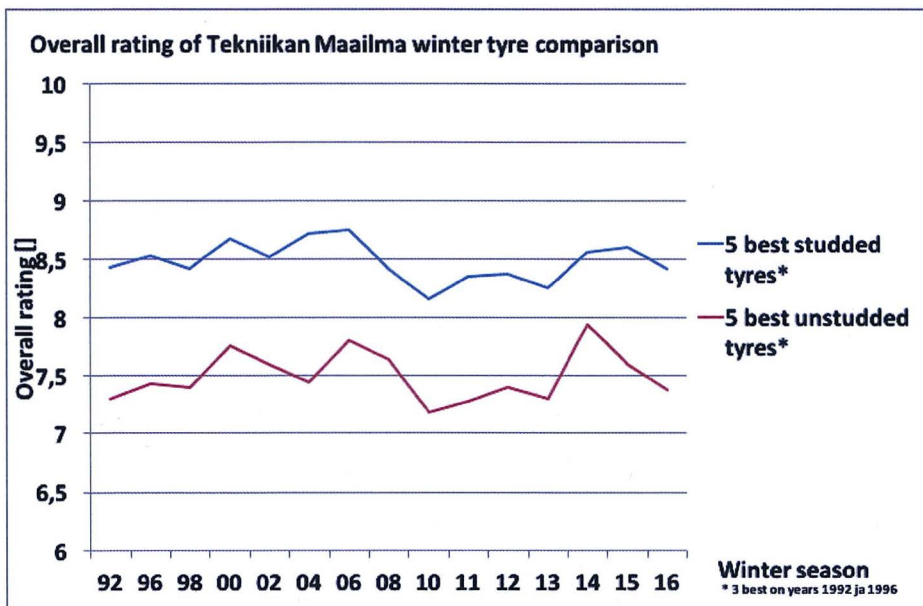
It has also been argued that non-studded tires have a better grip on ice than studded winter tires. In fact, modern studded tires clearly outperform non-studded winter tires on ice. This has been proven by numerous independent magazine tests over the years.

For example, a Finnish magazine *Tekniikan Maailma (The World of Technology)* has published winter tire comparisons and measured braking distances on ice for more than 25 years. During this period, the difference between the best studded and non-studded winter tires has remained constant. From Graph 5, it can be noted that studded tires have better grip on ice than non-studded winter tires.



Graph 5: Braking distances of five best studded and non-studded winter tires on ice 1990–2016

Also, the overall rating of studded tires has been consistently better over a 25-year period. The performance gap proves that even though non-studded tires have improved, studded tires are the safest choice in Northern roads.



Graph 6: Overall rating of Tekniikan Maailma winter tire comparison in 1992–2016

## Conclusion

To reduce road wear, Nokian Tyres supports the original version of Senate Bill 50 with the limit of 1.1 grams for the weight of the stud as a threshold for imposing the fee. The planned limit of 1.1 grams would bring the desired benefits of the bill, reducing road wear of studded tires up to 75 percent. Reaching this limit would be technically possible with the best available techniques.

Nokian Tyres regards the proposed amendment of 0.5 grams for the weight of the stud to be unrealistic as currently there are no technological possibilities to fulfil the requirement. With the amendment, the freedom of choice for consumers would be heavily restricted and studded tires completely pushed out of the market.

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<sup>i</sup> <http://www.brunowessel.com/catalog/index.asp?display=item&itemid=15>

<sup>ii</sup> Nastojen ja nastarenkaiden hyväksymisvaatimusten muutostarpeet, (Changes needed at studs and studded tires approval requirements) Ministry of Transportation and Communications and VTT, Finland 2008

<sup>iii</sup> Dipl.-Ing. Johannes Gültlinger – Investigations of road wear caused by studded tires, Trafi - EDEN expert meeting, Helsinki, November 27, 2014, Karlsruhe Institute of Technology

<sup>iv</sup> Alaska Public Media, 17 February 2017: New fee would sharply hike state fees for studded tires  
<http://www.alaskapublic.org/2017/02/14/new-fee-would-sharply-hike-state-fees-for-studded-tires/>

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# Craig Medred

A HOME FOR READERS AND THINKERS

WEDNESDAY, FEBRUARY 15TH, 2017

UNCATEGORIZED

## Cue the debate

BY CRAIGMEDRED ON FEBRUARY 13, 2017 • ( 7 COMMENTS )



## Costly bits of metal?

Alaska Sen. Cathy Giessel, a conservatively fiscal Anchorage Republican, has introduced legislation to up the fee on ice-gripping, motor-vehicle tire studs from \$5 to \$75 in the 49th state, thus fueling the perfect social-media debate.

As reported by [KTUU.com](http://www.ktuu.com) Austin Baird,

(<http://www.ktuu.com/content/news/Tax-on-studded-tires-would-increase-exponentially-under-new-plan-413379343.html>) the bill would add an increased cost of \$280 to a set of studded winter tires.

“Giessel, who chairs the Senate Resources Committee, said the move is necessary because studded tires contribute significantly to ruts that infamously slice through Alaska roadways,” he added.

“According to a statement describing her reason for introducing the bill, the Department of Transportation estimates that repairing a two-lane road from rutting costs \$1 million per mile.”

This is about all the information needed for an argument with simple battle lines:

On one side are those who believe “we need studs, or we’re all going to die in traffic accidents. And we can’t afford another \$280.”

On the other side are those of the opinion that “if you people knew how to drive, you wouldn’t get in accidents, and the studded-tire ruts in pavement cost the state a lot of money to repair. Why should we subsidize the desires of bad drivers?”

Oh if only things were so simple.

For anyone who cares to dig down, the debate appears nowhere this simple. Studs would appear to remain the gold standard for driving on glare ice, but in any other sort of winter conditions there might be studless tires as good or better. And there is more to the argument than just road-repair costs and personal safety.

### Studs kill people

Studs might be good for drivers and motor vehicle occupants. The consensus among highway safety experts at this time is that on icy roads with temperatures near freezing, studded tires remain the safest tires you can have on your car or truck.

But this doesn't mean studs are good for your neighbors. Studs, it would appear, can have life and death consequences for people outside your car or truck. There's a growing body of evidence that particulate matter ripped out of pavement by studs is a legitimate public health concern.

### A Swedish study presented to the International Society for Environmental Epidemiology in 2005

(<https://ehp.niehs.nih.gov/isee/p-3-30-05/>) concluded "8 premature deaths per year were avoided in the Greater Stockholm metropolitan area due to the ban (on studded tires) on one single street."

"Road traffic is the dominant local source of air pollution in Norway, especially due to the widespread use of studded tires from October to April. A car with studded tyres produces up to 100 times more particulate matter than a car with regular tyres," according to the Norwegian Environment Agency

(<http://www.environment.no/Topics/Air-pollution/>).

There is no data for air pollution linked to studded tires in Alaska, but the brown air that sometimes hangs over the state's largest city in winter coupled with the amount of studded-tire traffic on usually snow-free, bare-pavement thoroughfares such as the Glenn and Seward highway does give one pause to wonder.

The daily commuter traffic is thick on those two highways, and the two thoroughfares visibly show some of the greatest wear from studded tires. That would be in keeping with what the science says: the faster and/or heavier the vehicle with studded tires the more pavement it devours.

The Glenn and the Seward are both high-speed arterials. And both show the automobile-wide rutting common with studded tires.

### The case for and against

“A substantial volume of research has investigated the negative impact of studded tires on pavement,” **the Washington State Department of Transportation noted in an exhaustive 2002 examination of studded tire use.**

(<https://www.wsdot.wa.gov/research/reports/fullreports/551.1.pdf>) “This report does not concentrate on pavement wear issues. Rather, the focus of this work was to review the latest findings regarding the performance of late-model vehicles equipped with the current generation of studded tires, as well as those equipped with the new ‘studless’ winter tires such as the “Blizzak” made by Bridgestone/Firestone.”

The studs versus Blizzak debate now rages on social media with a lot of anecdotal accounts and little data. Washington

state investigators went digging for data. Here is some of what they found:

“1. Studded tires produce their best traction on snow or ice near the freezing mark and lose proportionately more of their tractive ability at lower temperatures than do studless or all-season tires.

“2. The traction of studded tires is slightly superior to studless tires only under an ever-narrowing set of circumstances. With less aggressive (lightweight) studs being mandated, and with the advent of the new ‘studless’ tire, such as the Blizzak, since the early 1990s, the traction benefit for studded tires is primarily evident on clear ice near the freezing mark, a condition whose occurrence is limited. For the majority of test results reviewed for snow, and for ice at lower temperatures, studded tires performed as well as or worse than the Blizzak tire. For those conditions in which studded tires provided better traction than studless tires, the increment usually was small.

“3. The precise environmental conditions under which studded tires provide a traction benefit are relatively rare. The maximum frictional gain (in comparison to nonstudded tires) is found for new studded tires on smooth ice, where they have been shown to provide up to 100 percent gain in certain tests. However, the relative frictional gain of studded tires diminishes or becomes negative on roughened ice, as the temperature drops, as the studs wear, or if the comparison is made with studless tires.

“11. A Norwegian study concluded that the use of studded tires tends to reduce the accident rate by a small amount – from 1 to 10 percent.

“13. Pavement rutting caused by accelerated wear from studded tires can cause the dangerous conditions of tramlining, hydroplaning on accumulated water in the ruts, excessive road spray, and premature damage to pavement markings.

“14. The roughening of ice and pavement from studded tires provides a safety benefit for all vehicles (with and without studs) by helping to prevent formation of smooth, glare ice.

The full study can be found [here](#)

(<https://www.wsdot.wa.gov/research/reports/fullreports/551.1.pdf>). It makes clear there are both costs and benefits to studded tires.

Some states – notably including snowy Michigan, Minnesota and Wisconsin – have looked at the costs and **banned studded tires** (<https://rma.org/tire-safety/seasonal-driving-tips/studded-snow-tire-regulations>) or, in the case of Michigan, allowed them in theory only. The Michigan Legislature wrote a law setting standards for a low-impact studded tire.

“Although state laws and regulations allow studded tires that meet restrictions for road wear/damage that studs cause to the pavement, to date no manufacturer of tire studs has supplied the required information to the Michigan Department of Transportation that their product meets or exceeds the pavement wear specifications,” **the state Department of Transportation says**. (<http://www.michigan.gov/mdot/0,4616,7-151-52374-205116--F,00.html>) “Therefore, studded tires are NOT allowed on Michigan roadways at this time.”

## Land of the free

None of the mountainous western states, including California where the snow piles deep in the Sierra Nevada Mountains, have banned studded tires, although the state of Washington

did impose a \$5 per tire state fee on studded tires in 2016, (<https://app.leg.wa.gov/rcw/default.aspx?cite=46.37.427>) and Oregon is reviewing its policies on studded tires.

“It’s time state legislators took more seriously the studded-tire question and, if not banning them outright, at least require a fee from drivers who buy them — to help defray costs of fixing the damage their tires do to everybody’s roads,” **The Register-Guard in Eugene, Ore., opined in a December editorial.** (<http://registerguard.com/rg/opinion/35086297-78/studded-tires.html.csp>)

“Why make the 96 percent of the people who don’t use studded tires pay for the damage caused by the 4 percent of the drivers who do?”

The complaint against studs in Oregon parallels the opposition to studs in Alaska: Someone has to pay for the damage they do to roads. A 2014 Oregon study put the costs of repairing stud damage at \$4 million per year on state roads alone in that state.

The study did note costs have been declining because fewer and fewer people drive on studded tires. Use, **the study said,** (<https://www.oregon.gov/ODOT/COMM/Documents/StuddedTireReport2014.pdf>) has dropped from 16 percent of vehicles in 1995 to 8 percent in 2014.

Oregon road repair costs are lower than those in Alaska because of considerable use of Portland Cement Concrete (PCC) roadways.

“Portland Cement Concrete is more resistant to rutting than asphalt,” the 187-page Oregon report said. “The PCC wear rate is about 0.0091 inches per 100,000 studded tire passes, while

the wear rate of asphalt pavement is about 0.0295 inches per 100,000 studded tire passes.”

Asphalt, in other words, wears more than three times faster than PCC. Most roads in Alaska are asphalt.

“While Portland cement concrete is a great roadway surface, the Alaska climate’s freeze-thaw cycles wreak havoc on it,” notes the University of Alaska Anchorage.

(<http://greenandgold.uaa.alaska.edu/blog/37620/research-a-new-idea-for-solving-rutting-intersections-in-anchorage/>)“Everyday traffic pounds the rigid surface and wide temperature fluctuations allow micro cracks to form in the concrete.”

The state, however, is now experimenting with a steel fiber-reinforced rubberized concrete developed by UAA Civil Engineering Professor Osama Abaza. It is to be tested on Abbott Road this year.

Abaza is pitching the fortified cement as a possible answer to Alaska’s rutted roads. He estimates it could reduce from five years to 20 years the time required for road repairs at Anchorage intersections where rutting is worst from the sliding and spinning tires of cars constantly starting and stopping.

“It’s going to save money,” he told KTUU.com in September. (<http://www.ktuu.com/content/news/A-concrete-solution-to-Alaskas-road-problems-395037831.html>) “It’s going to save lives, and at the same time, we don’t have to deal with the hassle of building those highway intersections every 4 or 5 years.”

The costs of large-scale use of the new product, if it passes performance tests, has yet to be determined. Meanwhile, tire

rubber compounds continue to evolve, slowly minimizing the advantage of studs on slick roads.

There may come a day when studless tire performance exceeds that of studded tires in all winter driving situations, but until then let the debate resume.

The data provides ammunition for both sides.

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COMMENTARY

# As Systems Erode, User Fees Are the Key to Infrastructure Reform

By *Randal O'Toole*

*This article appeared in [The Hill \(Online\)](#) on January 12, 2017.*

The nation's infrastructure is being widely discussed this week, with incoming Transportation Secretary Elaine Chao's confirmation hearing. But President-elect Trump's infrastructure plan, which Ms. Chao and other officials will be tasked with implementing, is nothing particularly groundbreaking. Instead, it's merely a new way of borrowing money, while offering no clear way to repay that money or to insure that it is spent on the most important projects.

Members of Congress have their own ideas. Some are proposing a variety of new, hidden taxes to fund infrastructure construction.

Taxes, however, are the wrong way to fund infrastructure. Instead, infrastructure should be funded exclusively out of user fees for four reasons.

First, user fees are fair and equitable. Why should corporate overseas profits fund American highways? Why should toll road users pay for rail transit? Such unfair funding mechanisms encourage government waste as agencies gold plate their projects to get the most money out of taxpayers.

With user fees, everyone pays for the highways, transit lines, water and sewage facilities, and other infrastructure that they use. No one has to subsidize someone else and no one has an incentive to overuse a resource because the cost is shifted to someone else.

Second, user fees provide essential feedback to both infrastructure providers and users. User fees help providers set priorities for spending money. If a piece of infrastructure is highly profitable, it means we need more of it; if it loses money because users aren't willing to pay for it, it means we shouldn't build more.

Similarly, user fees inform consumers about the best infrastructure to meet their needs. Shall I go to work by driving on a highway, local streets, by transit bus, rail transit, or by bicycle? Correctly priced infrastructure will help people find the combination of speed, convenience, and cost that is best for them.

Third, user fees solve resource shortages such as congested highways and droughts. Traffic congestion, which is a \$200 billion a year drain on our economy, is nothing more than a pricing problem. California, Oregon, and other states are experimenting with new mileage-based user fee systems that could eliminate congestion and raise revenues to expand capacity where it is needed

Droughts are also a pricing problem. Even the arid West has plenty of water, but it is currently allocated to some of the least valuable uses without regard to what users are willing to pay. User fees for water would effectively end any worries of shortages during dry years.

Finally, user fees solve the problems with crumbling infrastructure. Despite alarmist cries from those who seek to make profits from infrastructure spending, much of our infrastructure is actually in pretty good shape. In general, the infrastructure that is crumbling, such as the Washington DC Metro rail system, is infrastructure that was paid for out of tax dollars, while infrastructure paid for through user fees, such as state highways, are in better condition every year.

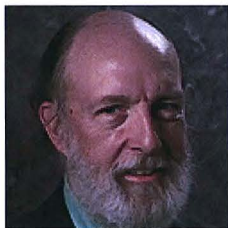
The reason is simple: when politicians fund infrastructure out of user fees, they direct the money to glitzy new projects that will get their names in the media rather than to maintenance of existing projects. As I recall a Department of Transportation official once saying, political leaders would rather "fund ribbons, not brooms." Transportation agencies funded out of user fees, however, know they have to keep their infrastructure in good shape or users will stop paying.

For example, the number of bridges that are structurally deficient has declined by nearly 60 percent since 1990. Most of the decline is among bridges owned by state highway agencies funded out of gas taxes, tolls, and other user fees, while most of the remaining deficient bridges are owned by city and county road departments that are typically funded out of property taxes.

The Washington, D.C. Metro rail system is a perfect example of how tax-funded infrastructure fails. The system has been declining for more than a decade. Yet rather than fund repairs and rehabilitation, politicians decided to build the Silver and Purple lines, both of which create more problems than they solve.

There may be a few kinds of infrastructure, such as schools, that might not be easily funded out of user fees. But these are the exceptions.

For everything else, including transportation, water, sewage, telecommunications, and the electrical grid, taxes aren't the answer. For the sake of fairness, feedback, congestion relief, and adequate maintenance, these things can and should be funded exclusively out of user fees. Members of Congress, incoming Secretary Chao, and other officials with purview over infrastructure should look to user fees as the way forward.



*Randal O'Toole is a senior fellow with the Cato Institute and author of Gridlock: Why We're Stuck in Traffic and What to Do About It.*

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# Use and Effects of Studded Tires on Oregon Pavements

BRUCE E. BRUNETTE AND JAMES R. LUNDY

The use and effects of studded tires in Oregon are investigated, updating a 1974 report. Studded-tire use was surveyed, rut measurements collected, studded-tire traffic estimated, and pavement wear and damage analyzed. Studded-tire use in Oregon varies geographically. Half of the vehicles equipped with studs use them on all wheels, representing a significant change from 1974 practices. More than 23 percent of vehicles used studded tires in 1994. Studded-tire pavement wear coefficients were calculated and found to be half those reported previously. The coefficients for rigid and flexible pavements are 0.20 mm (0.008 in.) and 0.86 mm (0.034 in.), respectively, per 100,000 studded tire passes. Studded-tire wear will shorten pavement life on high-volume routes in Oregon. Asphalt pavements experiencing average daily traffic (ADT) volumes of 35,000 and 20 percent studded-tire use will reach the threshold rut in 7 years. Portland cement concrete (PCC) pavements experiencing 120,000 ADT and 20 percent studded-tire use will develop the threshold rut depth of 19 mm in 8 years. These estimates substantially reduce Oregon design life expectations for asphalt and PCC pavements. The estimated Oregon studded-tire damage for 1994 is \$37 million for the state highway network, with similar damage for municipal and county roads. Alternatives are discussed to reduce the damage caused by studded tires, including a ban on studs, shortened use period, lightweight studs, user fees, and public education initiatives.

Studded tires were introduced in the United States in the early 1960s (1). Since that time, the public has come to associate improved traction and driving safety in winter with the use of studded tires. Numerous references have also indicated that studded-tire use increases the rate of pavement wear for both asphalt and portland cement concrete (PCC) surfaces.

The use of studded tires and the extent of pavement rutting attributable to them have been topics of spirited debate in the northern snow states, specifically whether user benefits are worth highway agency costs to repair damage caused by studded tires. For example the Alaska Department of Transportation and Public Facilities (DOT&PF) estimates highway damage from studded-tire use in Alaska to be \$5 million annually (D. Esch, unpublished data). The Oregon Department of Transportation (ODOT) recently published a preliminary report (2) that estimates studded-tire damage for 1993 to be \$24 million on the state highway system and \$18 million on city and county roads, for a total of \$42 million in damage statewide. This new ODOT estimate increased by an order of magnitude previous estimates of pavement damage from studded tires. Clearly, there is renewed interest in Oregon to accurately determine the rate of pavement wear from studded tires and whether perceived safety benefits outweigh annual highway damage.

## BACKGROUND

Studded tires were first authorized in Oregon in 1967 (3). Within a few years, excessive pavement wear became apparent. This led to a

2-year study to determine studded-tire use and pavement wear rates within the state. The study also investigated whether the advantages afforded by studded tires justified the annual damage costs of pavement wear.

Oregon was not alone in its concern for studded-tire pavement damage. During the late 1960s and early 1970s, many northern states (Alaska, Connecticut, Iowa, Michigan, Minnesota, Nebraska, Pennsylvania, and Utah) were involved in similar studies (4–8), as part of a national concern about pavement wear attributed to studded tires. As a result, some states (including Illinois and Minnesota) prohibited the use of studded tires.

ODOT research efforts culminated in the publication of an internal document (3) in 1974 that reported that the use of studded tires varied by region (see Figure 1). In 1974, the statewide average of studded-tire use was 9.2 percent. The report also documented that almost all vehicles equipped with studded tires used them on only one axle, typically the drive axle.

Pavement wear rates were established, based on rut measurements at 16 sites. The 1974 wear rate for PCC pavements was reported to be 0.66 mm (0.026 in.) per 100,000 studded-tire passes and 1.67 mm (0.066 in.) per 100,000 studded-tire passes for asphalt pavements. Based on the pavement wear studies, the report estimated that more than 1,600 lane km would require maintenance earlier than they would without studded-tire use and that 150 lane km would require resurfacing annually due to studded-tire wear. The estimated annual cost for increased pavement wear was \$1.1 million in 1974. ODOT recommended a prohibition on studded tires based on these costs and the inability to define sufficient safety benefits attributed to studded tires. However, no action was taken by the Oregon legislature to ban studded tires.

Since 1974, no extensive studies have been performed regarding studded-tire wear in Oregon. In 1994, the Oregon legislature (2) required that ODOT investigate current studded-tire use and pavement wear rates to determine whether the annual damage model and associated costs had changed since the 1974 study.

A separate related study was undertaken at Oregon State University. The purpose of this study (9) was to update the 1974 ODOT report regarding the distribution and use of studded tires in Oregon and to determine pavement wear rates, based on current traffic and rutting information. This information will enhance the existing studded-tire wear model and more accurately describe current annual pavement damage and costs attributed to studded tires.

## OREGON STUDED TIRE USE SURVEYS

Oregon studded-tire use surveys began during the winter of 1993–1994 and continued into the winter of 1994–1995. Studded-tire surveys were performed at 39 locations distributed throughout the state.

B. E. Brunette, USDA Forest Service, Stikine Area, P.O. Box 309, Petersburg, Alaska 99833. J. R. Lundy, Department of Civil Engineering, Oregon State University, 202 Apperson Hall, Corvallis, Ore. 97331.

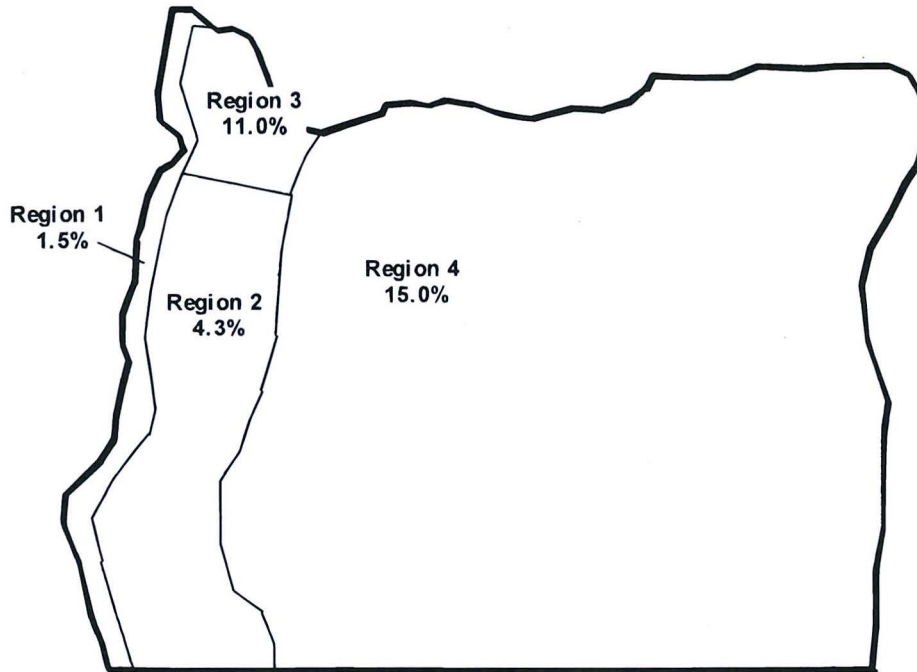


FIGURE 1 Historic Oregon studded tire use rate, reported in 1974 (3).

Initially, studded-tire use surveys were obtained from moving traffic at high-volume intersections. Determining stud use in moving traffic, where sound is used to discriminate the use of studs, has inherent problems. These problems include the inability to determine whether a vehicle is equipped with studs on all wheels, inaccuracies in the tallies due to high traffic volumes, and high noise levels generated at the sampling sites. Past moving-traffic studies in Oregon have underestimated studded-tire use compared with parked-vehicle counts on the same day (3). Because the principal use of studs is on passenger cars for the reasons listed above, the principal method used to obtain studded-tire use involved counting parked vehicles, primarily at shopping malls. The parked vehicle technique provides a very accurate portrayal of studded-tire use and enables the surveyor to determine whether a vehicle is equipped with studs on all wheels.

The percentage of studded-tire use was calculated by taking a simple ratio of the number of vehicles equipped with studs versus the total number of vehicles surveyed. This information was further refined by calculating an effective studded tire use rate, which compensates for the number of vehicles with studs on all four wheels. For example, a vehicle equipped with studs on all four wheels counts as two studded-tire passes per wheelpath, whereas a vehicle equipped with studs on one axle counts as a single studded-tire pass. Table 1 provides a sample calculation.

To compare past studded-tire use with current use, an effective studded-tire use rate was calculated for the same four geographic regions used in the 1974 report. It should be noted that these four geographic regions do not coincide with those currently used by ODOT.

The results of the 1994 studded-tire surveys are compared with the 1974 results in Table 2. Studded-tire use has increased substantially in all areas of the state. A significant change has occurred in studded-tire practices since 1974, when only in rare instances were vehicles equipped with studs on all wheels. In 1994, almost half of the vehicles equipped with studs have them on all four wheels. This has the effect of greatly increasing the effective percentage of studded-tire use. Increases have occurred in all areas of the state but not as dramatically as on the Oregon coast. Statewide, factoring in the number of vehicles with studs on all four wheels, the use is almost three times that reported in 1974.

Table 3 shows the studded-tire use trend since 1973. Note the data are not continuous; a notable 10-year gap exists between 1973 and 1983. Based on the available information, it appears that studded-tire use was relatively consistent up to 1992. After 1992, a dramatic increase in studded-tire use occurred. It is uncertain whether this increase in studded-tire use was gradual or whether the sampling methodology used previously was insufficient to characterize the true use rate. In either case, the use of studded tires is becoming increasingly popular and should cause Oregon residents concern because of pavement damage caused by studs.

TABLE 1 Methods of Reporting Studded Tire Use, Accounting for the Number of Vehicles with Studs on All Wheels, Sample Calculations

No. of Vehicles Surveyed	No. of Vehicles with Studded Tires	No. of Studded Tire Vehicles With Studs on All Wheels	Studded Tire Use Rate (%)	Effective Studded Tire Use Rate (%)
100	16	8 of the 16	16/100 = 16%	(16 + 8)/100 = 24%

TABLE 2 Comparison of 1974 Studded Tire Use with 1994–1995 Studded Tire Use

State Area	Studded Tire Use (1974)	Studded Tire Use (1994-95)	Effective Studded Tire Use (1994-95)
Area 1 Oregon Coastal Region	1.5%	8.9%	12.8%
Area 2 Central Willamette Valley	4.3%	10.3%	15.4%
Area 3 Tricounty, Portland Area	11.0%	15.6%	21.9%
Area 4 Central and Eastern Oregon	15.0%	37.6%	59.4%
Traffic Weighted	9.2%	15.9%	23.8%
Statewide Average			

### RUT DEPTH DATA

All the rut depth information for the project was obtained from manual rut measuring techniques. The manual measurements involved the use of a 1.2-m-long (4-ft-long) aluminum channel straight edge, equipped with a single brass or steel dowel. The dowel is machined to allow free vertical movement, perpendicular to the straight edge, and is calibrated to measure the depth of rutting to the nearest 1.6 mm ( $\frac{1}{16}$  in.). A maximum rut depth was recorded for each wheel track and a paint dot applied to the pavement for each travel lane. The purpose of the paint dot was to mark the location of maximum rut for each wheelpath, which then could be used as a reference for recording the center-to-center distance between wheel tracks. The center-to-center distance was further used as an aid to identify the vehicle type causing the rutting.

Rut measurement site selection was based on a variety of criteria including pavement type (e.g., flexible or rigid), pavement age, traffic volumes, and number of travel lanes. To obtain better isolation of studded-tire wear, only sites with multiple lanes were used in the study. Rut depths were measured in the lanes most frequented by passenger cars and compared with those obtained in the outermost lane.

The longitudinal distance between measurements was acquired using two basic approaches at each site. One technique involved measuring ruts at 0.16-km (0.1-mi) increments for a specified road segment. Measurements were obtained in both wheelpaths in each lane. Pavement segments with similar rut depth data were averaged for the analysis.

Another rut measurement approach involved manual measurements of pavement rutting at 7.6-m (25-ft) increments, for a total distance of 305 m (1,000 ft). Because both wheelpaths were mea-

sured in each lane, a total of 80 measurements were obtained for each lane in the 305-m-long (1,000-ft-long) pavement segment. The 80 measurement points were averaged for each lane as the representative rut depth. Because the traffic distribution, rut depths, and number of studded tire passes are unique for each lane, each lane represents a distinct data point that can be compared with all others in regression analysis. Based on this premise, several data points may be established at any one measurement site. Figure 2 portrays the methodology.

Rut measurements were taken during the fall of 1994 and spring of 1995 using the techniques outlined above. Rut depth measurements were obtained for 27 sites, establishing 18 data points for asphalt pavements and 36 data points for PCC pavement. Rut measurements reported in an ODOT preliminary report (2) were also used in this study for additional data points. This provided an additional 26 measurement sites (18 for asphalt and 8 for PCC pavements). In the final analysis, 36 data points were examined for asphalt and 45 data points for PCC pavements.

Rut depths varied with pavement type and age and studded-tire traffic. The deepest rut measured for asphalt pavements was 50 mm (2 in.), found on an 11-year-old pavement on US-26. The deepest rut measured for PCC pavements was 16.8 mm (0.66 in.), found on a 13-year-old section of I-205. Both of these pavements are in the Portland metropolitan area and experience average daily traffic (ADT) volumes in excess of 100,000.

Studded-tire rutting is distinctly different from permanent deformation rutting caused by heavy trucks. Stud ruts are typically found in the center lane or left lanes, where passenger cars predominate. Wheelpath ruts attributed to studded tires are also typically narrowly spaced, that is, the distance between wheel tracks is approximately

TABLE 3 Comparison of Historic Studded Tire Use With Current Use Patterns

Geographic Area*	Dates of Surveys					Effective Use 1994-95
	1973-74	1983-84	1984-85	1989-90	1994-95	
1	1.5%	3.9%	1.5%	1.7%	9.4%	13.5%
2	4.3%	2.8%	3.4%	3.0%	10.4%	15.4%
3	11.0%	5.8%	5.5%	2.1%	14.5%	20.5%
4	15.0%	11.6%	14.2%	11.1%	37.6%	59.4%
Traffic Weighted Statewide Average	9.2%	6.7%	6.6%	4.7%	15.9%	23.8%

\*See Table 2 for Description of regions

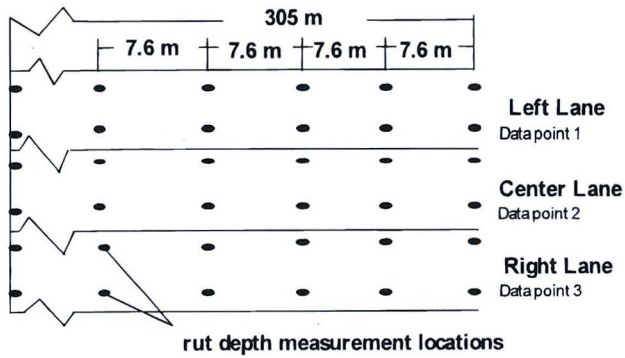


FIGURE 2 Rut depth measurement technique.

1.5 m (60 in.). This contrasts to heavy-vehicle rutting, which is most often found in the right lane where trucks frequently travel. Typical distance in load-related rutting is 1.8 m (70 in.), center to center. Studded-tire ruts are well defined and sharp shouldered whereas those caused by heavy wheel loads are broader and less severe in cross section.

It should be noted that, particularly in asphalt pavements, some rutting is caused by load-related effects. Without careful monitoring, it would be extremely difficult to separate load-related rutting from surface wear due to studded tires. Some researchers report a high initial permanent deformation rate that reaches a lower, stable rate after initial loadings (4). For purposes of this study, it is assumed that all the rutting damage is attributed to studded-tire surface wear except where wheel track spacing clearly shows heavy vehicles to be the cause of the rutting. All wear in PCC pavements was assumed to be caused by studded tires.

The distance between wheeltracks was also measured and is shown in Table 4. Note that the distance between wheeltracks varies among sites, with an average of 1.5 m (59 in.). Some of the variation in the distance between ruts is attributable to difficulty in locating the maximum rut depth on relatively new pavements. Nonetheless, the measured distance between ruts closely matches the tracking distance on a variety of intermediate-size passenger cars (9). This compares favorably with the average distance of 1.48 m (58 in.) reported in Alaska (10).

Of the sites measured, only three locations were found to have a wheel track separation that matches the tracking distance for trucks. All three were found in the right lane and were not used in the average reported in Table 4.

STUDED TIRE USAGE

Traffic volume data for the study were obtained from the 1992 ODOT Traffic Volume Tables (11). This information was further augmented by data obtained from the ODOT Transportation Development Branch (G. Harvey, unpublished data), which provided growth rate and lane percentages for passenger cars for each pavement segment. Data provided by ODOT are based on past traffic counts and experience and are assumed to be accurate.

One can project forward (or backward) to estimate future (or past) traffic using the published traffic data and growth rates for a specific road segment. It is also possible to estimate the total number of studded-tire passes per travel lane using lane percentage, pavement age, seasonal traffic distributions, and historical studded-tire use.

TABLE 4 Distance Between Wheel Track Ruts

Highway	Milepost	Pavement Type	Age, years <sup>2</sup>	Rut Depth, mm			Distance between Rut, meters		
				Left Lane	Center Lane	Right Lane	Left Lane	Center Lane	Right Lane
I-5	243.0	F-mix	4	8.2		7.4	1.47		1.63 <sup>1</sup>
I-5	245.5	F-mix	1	3.3		3.9	1.40		1.47
US 97	133.5	F-mix	6	11.7		21.4	1.52		1.45
US 97	140.4	F-mix	3	15.3		18.0	1.55		1.47
I-84	45.5	F-mix	1	2.4		3.5	1.50		1.55
I-5	242.75	B-mix	12	18.4		13.3	1.50		1.55
I-84	46.5	B-mix	9	8.5		13.9	1.63 <sup>3</sup>		1.85 <sup>3</sup>
I-84	20	B-mix	12	8.4		23.3	1.52		1.75 <sup>1</sup>
ORE 22	3	B-mix	19	9.8		18.0	1.57		1.60
I-5	262	PCC	19		11.6	6.2		1.50	1.47
I-5	278	PCC	20		12.8	5.8		1.47	1.50
I-5	287.5	PCC	25		17.3	8.6		1.47	1.52
I-205	12	PCC	13		16.8	13.1		1.50	1.47
<b>Average</b>							<b>1.52</b>	<b>1.50</b>	<b>1.50</b>

<sup>1</sup> Right lane rutting caused by heavy trucks, so not used in average

<sup>2</sup> Pavement age when ruts were measured

<sup>3</sup> Rutting in both lanes not used because ruts are due to heavy trucks

**Pavement Wear Rate Calculations**

It is assumed that the measured rut depth for each site is a function of the total number of studded-tire passes experienced by the pavement. It is further assumed that the rut depth represents the accumulated annual rut damage caused by the accumulated annual studded-tire passes for all previous years. For example, rut depth damage for a 1-year-old pavement can be estimated by the following:

$$Rut_1 = a \times TR_1$$

where

- $Rut_1$  = rut depth for the first year after construction,
- $a$  = a damage factor or coefficient, assumed to be constant for a specific pavement type, and
- $TR_1$  = total number of studded tire passes for the first year.

After the wear coefficient has been determined, the only variable in the equation is the number of studded-tire passes the pavement experiences.

For a pavement of age  $n$ , the total rut depth follows a similar relationship:

$$\sum Rut_n = a \times TR_1 + a \times TR_2 + \dots a \times TR_{n-1} + a \times TR_n$$

The following procedure was used to determine the total number of studded-tire passes in a given traffic lane.

1. Determine the average annual daily traffic (AADT) from the 1992 ODOT Traffic Volume Tables.
2. Estimate past AADT and future AADT by adjusting for growth using the following relationships:

$$AADT_{x-1} = AADT_x / (1 + AG),$$

$$AADT_{x+1} = AADT_x (1 + AG)$$

where

- $AADT$  = data from 1992 ODOT Traffic Volume Tables,
- $x$  = 1992 base year, and
- $AG$  = annual growth rate, assumed to be constant.

3. Determine the traffic in each direction ( $ADT_d$ ) by assuming that the traffic is equally split for each direction of travel. This is estimated by simply halving the AADT for each year.

$$ADT_d = AADT/2$$

4. Determine the lane ADT ( $LADT$ ) for passenger cars and pickups by multiplying the percentage of use, based on the ODOT-supplied lane percentage information.

$$LADT = \text{Lane split \%} \times ADT_d$$

5. The annual number studded-tire passes ( $ASTP$ ) is determined by multiplying  $LADT$  by the percentage of cars and pickups in the traffic stream (from the 1992 ODOT Traffic Volume Tables), the percentage of annual traffic during the months that studded tires are used (seasonal percentage), and the percentage of studded-tire use to determine daily studded-tire passes in each lane. The annual number of studded-tire passes is determined by multiplying by 365 days.

$$ASTP = LADT \times \% \text{ (cars and pickups)} \times \% \text{ seasonal} \times \% \text{ studs} \times 365$$

6. Determine the cumulative number of studded-tire passes for each lane by summing the results of the annual studded-tire passes with the number of iterations based on the age of the pavement.

$$\sum_{i=1}^n ASTP$$

where  $n$  is the pavement age in years, and  $ASTP$  is the annual studded-tire passes.

To determine the coefficient of wear,  $a$ , for each pavement type, the rut depth information and the total studded-tire passes are plotted and a linear regression line is fitted to the data. The wear rate standard for this project was 100,000 studded tire passes.

**Results of Oregon Studded-Tire Pavement Wear Studies**

Pavement rutting was plotted against the estimated total of studded-tire passes for 27 of the 36 data points for asphalt pavements and all 45 data points for PCC pavements. Some points were removed from the analysis because the distance between wheelpaths indicated heavy truck rutting or substantial deviation from other data points. Because of the nature of flexible pavements and the inherent variability in asphalt mixes, pavement subgrade, and construction practices, it is not surprising that some data would be unsuitable for analysis. In contrast, the PCC data were very consistent, and all data points were suitable for analysis.

Figure 3 portrays the linear regression results for asphalt. The linear equation explains 87 percent of the variability in the data. The  $Y$  intercept, in part, reflects a higher initial wear rate for asphalt mixes. A lower rate of wear is reached within the first few hundred thousand studded-tire passes. Once the higher initial wear value is overcome, the average wear value for asphalt is 0.86 mm (0.034 in.) per 100,000 studded-tire passes.

Figure 4 depicts the linear regression results for PCC pavements and explains 68 percent of the data variability. More scatter exists in the PCC data due in part to the age of some of the sections. It was necessary to extrapolate nearly 30 years of traffic and studded-tire use rates. This undoubtedly affects the quality of the data. The slope of the best fit line was 0.20 mm (0.008 in.) per 100,000 studded-tire passes.

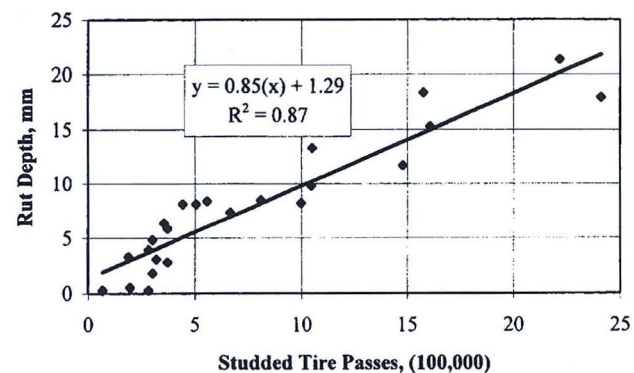


FIGURE 3 Asphalt studded tire wear rate results.

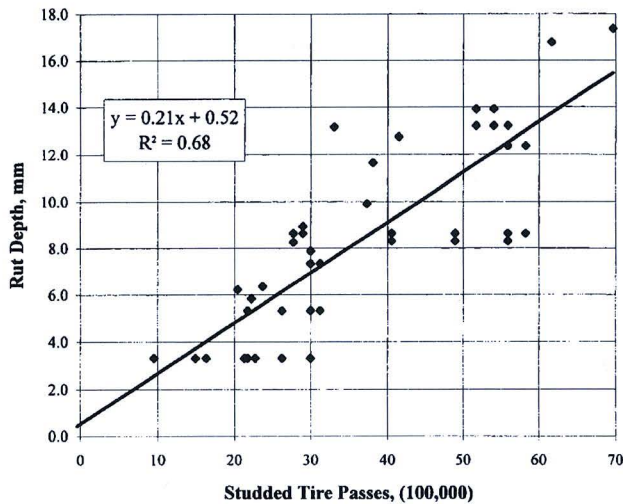


FIGURE 4 PCC studded tire wear rate results.

Table 5 compares the results of past and current studded-tire pavement wear results for Oregon and those reported by Hicks et al. (12) for Alaska. It is interesting that the results of the 1974 studded-tire wear studies are roughly twice the values determined in the current study. This finding is consistent with what has been reported by Cantz (13) and Cook (14), who reported that wear from the controlled protrusion stud was approximately one-half that of the conventional tire stud. The predominate tire stud used in the 1974 study was the conventional stud, whereas the current study is examining pavement wear caused by the controlled protrusion stud.

Oregon values are higher than the asphalt wear rate results reported for Alaska in 1990 (12). One possible reason is that the studies performed in Alaska are on lower-speed 55-km/hr (35-mi/hr) facilities, whereas the Oregon pavement sections are located on facilities with speeds in excess of 100 km/hr (65 mi/hr). According to European studies (15), increasing speed from 65 to 85 km/hr results in a 30 percent increase in asphalt pavement wear. Other possible reasons for increased wear in Oregon compared with Alaska are Oregon's warmer climate and lighter snow cover. Past studies have indicated pavement wear increases with increasing temperature (16). Neither of these factors is singularly responsible for a higher asphalt wear rate, but the combination may lead to higher rates of studded-tire pavement wear in Oregon.

Even though the number of data points for each asphalt mix type is limited, comparisons were made to determine if certain mixes are more resistant to stud wear than others. The results indicate dense-graded mixes (B mixes) are slightly less resistant to studded tire wear than open-graded mixes (F mixes). Using regression, stud wear for B mix and F mix was calculated to be 1.3 mm (0.050 in.) and 0.89 mm (0.035 in.) per 100,000 studded-tire passes, respec-

TABLE 5 Reported Studded Tire Wear Rates in Oregon and Alaska (in mm) per 100,000 Studded Tire Passes.

Pavement Type	1974 Oregon (4)	1990 Alaska (11)	1995 OSU (3)
Asphalt	1.68	0.84 <sup>1</sup>	0.86
PCC	0.66		0.20

<sup>1</sup> Average of 4 values reported in reference

tively. When viewed in the overall aggregate of asphalt mixes, open-graded mixes appear to offer no statistically significant advantage in stud wear resistance.

The studded-tire wear resistance of mixes using modified asphalt was also examined. Unfortunately, only five data points were available for examination, and two of those were considered outliers. The average studded-tire wear resistance was calculated to be 0.41 mm (0.016 in.) per 100,000 studded tire passes, suggesting an improvement in stud wear resistance compared to unmodified asphalt mixes.

Given the limited data, the apparent reduction in pavement wear attributed to modified asphalt is not conclusive. Additional study is warranted, and, if the trend cited above is repeated, modified asphalt mixtures may provide a partial solution to the studded-tire pavement damage problem.

#### ESTIMATED COSTS OF DAMAGE BY STUDED TIRES IN OREGON

The ODOT preliminary report estimated the damage caused by studded tires to roads under ODOT jurisdiction (2) at \$24 million for 1993. A total damage estimate of \$42 million was reached when county and municipal damage was included.

The current study updated the damage model to reflect changes in vehicle miles traveled, studded tire use, and pavement wear factors for 1994. Based on the introduction of these factors, a new damage estimate was established for roads under ODOT jurisdiction. The model, provided in Table 6, yields \$37 million in damage due to studded-tire wear damage for 1994. A similar magnitude of damage can be assumed for county and municipal road systems. Thus, the total annual damage in Oregon is approximately \$70 million. ODOT currently (1993) spends \$11 million annually to repair studded-tire damage (17).

#### IMPLICATION OF RESULTS

It can certainly be concluded that the use of studded tires in Oregon is increasing at an alarming rate. Even if the current stud use rates remain constant, Oregon's population growth will likely lead to increased pavement damage from studded tires.

#### Implications of Studded-Tire Pavement Wear Rates

Pavement surface wear from the use of studded tires has not been formally considered in mix design criteria in North America or in Oregon. However, because the development of a 19-mm (3/4-in.) rut triggers rehabilitation in Oregon, it is likely that surface rutting from studs has played some role in establishing pavement design life expectancy in Oregon. For example, life expectancy estimates for Oregon asphalt and PCC pavements is 14 years and 25 years, respectively, reflecting relatively low historical studded-tire use rates (shown in Table 3). With stud use rates now more than doubled, the development of pavement rutting will substantially increase compared with past Oregon experience and cause a decrease in pavement life.

To test the hypothesis that a 19-mm (3/4-in.) rut will be reached in a shorter time than in the past, several scenarios were examined. This analysis was performed using the pavement wear rates estab-

TABLE 6 1994 Studded Tire Damage Estimate for Roads Under ODOT Jurisdiction

Current Oregon Geographic Regions	Pavement Type	1992 Gross VKT (billions)	Estimated 1994 Gross VKT (billions)	No. Of Studded Tire Passes (millions)	Damage mm/lane/km
1	Concrete	2.70	2.77	152	193
1	Asphalt	6.44	6.61	363	1960
2	Concrete	1.12	1.56	43	54
2	Asphalt	4.97	5.10	189	1020
3	Concrete	1.26	1.29	22	28
3	Asphalt	5.16	5.30	91	490
4	Concrete	0.04	0.04	6	8
4	Asphalt	2.89	2.96	450	2430
5	Concrete	0.39	0.40	22	28
5	Asphalt	2.00	2.05	113	610
				Total Concrete	311
				Total Asphalt	6511
Annual Damage					
Mitigating Strategy	Replacement Cost per Lane Mile	Threshold Rut	Pavement Type	Cost	
75 mm AC Overlay	\$50,000	19mm	Concrete	\$1,308,116	
Grind & 75 mm AC Overlay	\$65,000	19mm	Asphalt	\$35,549,576	
<b>Grand Total</b>				<b>\$36,857,692</b>	

lished by this study and assuming a constant 20 percent (rather than the actual statewide value of 23 percent) studded tire use rate. To simulate situations found in Oregon, traffic growth, percentage of cars, seasonal percentages, lane percentages, and other typical conditions were factored into the analysis. The pavement structures considered included a four-lane asphalt facility and a six-lane PCC pavement. Traffic volumes were varied to determine trends in studded tire surface wear and the time required to reach the 19-mm ( $\frac{3}{4}$ -in.) rut depth threshold.

The results are indicated in Figure 5 and Figure 6. Note that a traffic level of 15,000 ADT yields no reduction in the asphalt pavement life, and requires about 15 years to reach a 19-mm ( $\frac{3}{4}$ -in.) rut. However, at traffic levels of 20,000 ADT or higher, studded-tire surface

wear substantially shortens the time to reach the threshold rut, reducing pavement life expectancy. At traffic levels equivalent to 35,000 ADT, the time to reach the limiting rut is about 7 years, or one-half the design life expectation for asphalt.

The results for PCC pavements are portrayed in Figure 6 and illustrate a similar pattern. Based on the scenarios generated, a 24-year life is consistent with traffic volumes less than 40,000 ADT. At traffic levels of 120,000 ADT, such as that experienced in the Portland area, the estimated time to reach the threshold rut is less than 10 years.

Based on the results above, if studded-tire use remains constant, it can be concluded that studded tire surface wear will substantially reduce the time before pavement rehabilitation is triggered for Oregon pavements.

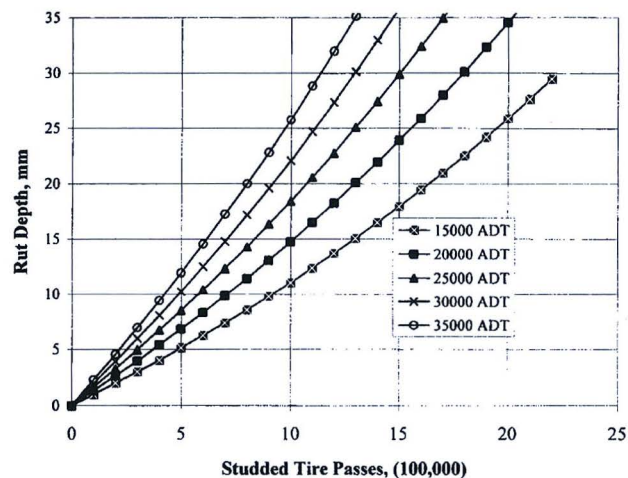


FIGURE 5 Asphalt studded tire rut depth as influenced by ADT.

### Cost Implications

A strategy often used by agencies to estimate the cost of damage is to apply only those costs the department commits to spending annually to repair the damage, not the costs of the actual damage. Often the amount committed to repair damage is fixed and does not change even though conditions shift and change the rate at which damage occurs. This strategy is never completely satisfactory but works when the fixed annual expenses approximate the damages incurred for a given year. However, when damage is significantly greater than the fixed costs allocated for repair, a widening gap develops between damage and repair. The net result is a deterioration of conditions over time.

ODOT uses the fixed-cost approach and commits \$11 million annually to repair stud damage. Now that studded-tire use has increased substantially, annual pavement damage is accruing at a greater rate than the available repair funds. This should cause con-

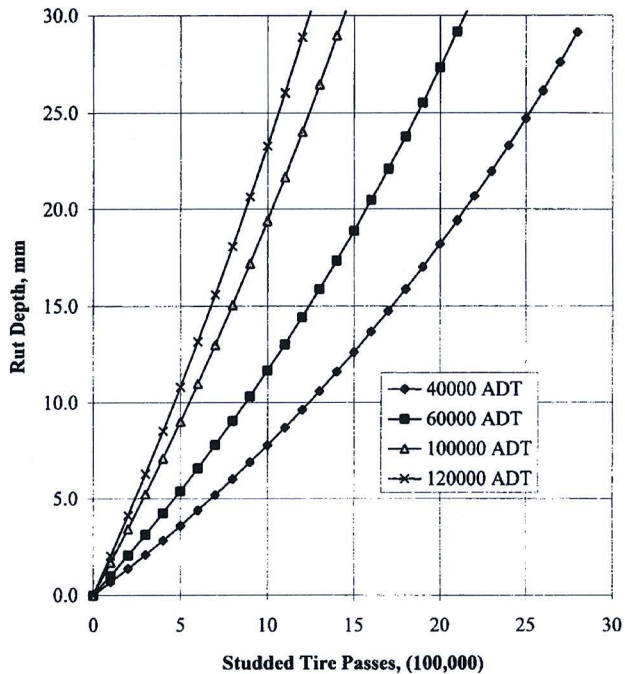


FIGURE 6 PCC studded tire rut depth as influenced by ADT.

cern for ODOT as well as the driving public. Clearly, something must be done to preserve the level of service Oregon drivers have come to expect from the Oregon state highway system.

#### ALTERNATIVES TO STUDED TIRES AND AGENCY MANAGEMENT OPTIONS

Several options appear to be available to the state of Oregon to decrease studded tire damage and use. Most of the options will need legislative support to implement. Options include the following:

- Ban the use of studded tires.
- Shorten the length of time studded tires are permitted.
- Require that lightweight studs be used instead of studs used currently.
- Establish a user fee for those who desire to use studded tires.
- Provide pavements more resistant to studded tires.
- Educate the public about the damage caused by studded tires and the situations in which studded tires are effective. (For Oregon weather conditions, it is suggested that studs are effective only a few days out of the entire year.)
- A combination of two, three, four, or more of the options above.

One option to reduce pavement damage is to simply reduce the time studded tires are permitted. The current use period dates back to the late 1960s when legislation permitting studded tires was enacted. For this approach to be effective in reducing stud damage, a substantial reduction in the permitted use period should be examined. A one-third reduction in the permitted time of use should be considered as the minimum; this has the potential of reducing stud wear by one-third.

A lightweight stud provision should also be considered. Based on European studies, lightweight studs reduce pavement wear by one-half, compared with studs currently used (16). Lightweight studs are not the complete answer but may provide some relief in reduced damage in several years. The disadvantage of a lightweight stud is that legislation would not likely go into effect for 2 to 3 years because suppliers will request—and likely receive—time to deplete their current stud inventory. It will also take several years before existing studded tires wear out. The overall effect results in delaying the benefits from lightweight studs for an estimated 5 years after enacting legislation.

After lightweight studs are completely deployed, the reduced pavement damage afforded by their use may be satisfactory for lower-volume facilities. But for high-volume corridors, it will only be a matter of time before stud rutting will again become a problem. The lightweight stud option is one being considered by the states of Alaska and Washington. Even though lightweight studs are an important step in reducing damage, they should not be considered the final answer for high-volume facilities.

Initiating action to improve the studded-tire wear resistance of Oregon pavement structures is worthy of consideration. Northern Europe—specifically Norway, Sweden, and Finland—has dealt with studded-tire pavement wear issues for more than 2 decades. These countries, in which studded tire use approaches 95 percent, have been very progressive in ameliorating stud damage. They have developed special testing devices and procedures to reduce stud wear and are willing to share that experience. Alaska DOT&PF is working with the Road Research Institute of Finland to improve the pavement structures (D. Esch, unpublished data). Oregon could adopt a similar strategy. At a minimum, testing in Finland should be undertaken to determine what level of stud resistance current Oregon mix designs are providing.

A studded-tire user fee structure could also be implemented to recover damages to highways from studded tires. The user fee could be established at the time of purchase of studded tires or as an annual fee system. A user fee structure should be considered in the interest of equity because only 16 percent of Oregon drivers use studs and cause all the stud damage. The remaining 84 percent subsidize them by sharing the deteriorating pavement conditions and the costs of repair.

Using Oregon Division of Motor Vehicle records (18) and the effective percentage of studded tire use and applying the estimated \$42 million in annual studded tire damage for 1993, the basis is provided for establishing a fee structure. Stud users would pay an annual fee of approximately \$55 per axle for vehicles equipped with studded tires. For a vehicle equipped with studs on both axles, the annual fee would be \$110.

Another fee alternative would assess a studded-tire user fee at the time of sale. The 1993 damage estimate of \$42 million, assuming the typical studded tire will last five seasons, results in \$140 proportionate damage for the life of the tires, not including inflation. The fees are not trivial, but neither is the pavement damage caused by studded tires. One must also keep in mind that the damage estimate for 1994 is approximately twice that estimated for 1993 simply because studded tire use has increased.

The combination of lightweight studs, a reduction in the time permitted for stud use, and a user fee structure to recoup pavement damage may be the best course of action. In any case, information provided from this research effort yields reliable wear factors and studded tire use percentages for making sound decisions. Unfortunately, past studded-tire legislation efforts have been on the basis of politics instead of rationality.

## SUMMARY

It is clear that studded-tire users are convinced studs improve driver safety since past legislative efforts to reduce stud damage have been unsuccessful. Unfortunately, no known objective studies in North America have indicated safety benefits monetarily equivalent to the pavement damage associated with stud use. For most Oregon driving conditions, in which the pavement is either wet or dry and at temperatures above freezing, the use of studded tires appears to offer very limited safety advantages compared with modern radial traction tires. When considering the annual pavement damage and decreased pavement life identified in this study, road user delays while repairing stud damage, and increased splash and spray and hydroplaning conditions experienced all year, the safety benefits afforded by studs would have to be significantly greater than what is currently known to justify their continued use. Based on these conclusions, it is apparent that additional study is needed to better define the safety benefits provided by studded tires.

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# ALASKA STATE LEGISLATURE

## SENATE TRANSPORTATION COMMITTEE

Senator Bert Stedman, Chair  
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SB 50

Letters of Support  
As of March 6, 2017

**From:** Jessica Hoffman [<mailto:jesshoffman@yahoo.com>]

**Sent:** Tuesday, February 14, 2017 12:54 PM

**To:** Sen. Click Bishop <[Sen.Click.Bishop@akleg.gov](mailto:Sen.Click.Bishop@akleg.gov)>; Sen. Anna MacKinnon <[Sen.Anna.MacKinnon@akleg.gov](mailto:Sen.Anna.MacKinnon@akleg.gov)>; Sen. Bert Stedman <[Sen.Bert.Stedman@akleg.gov](mailto:Sen.Bert.Stedman@akleg.gov)>; Sen. David Wilson <[Sen.David.Wilson@akleg.gov](mailto:Sen.David.Wilson@akleg.gov)>; Sen. Dennis Egan <[Sen.Dennis.Egan@akleg.gov](mailto:Sen.Dennis.Egan@akleg.gov)>; Sen. Lyman Hoffman <[Sen.Lyman.Hoffman@akleg.gov](mailto:Sen.Lyman.Hoffman@akleg.gov)>; Sen. Peter Micciche <[Sen.Peter.Micciche@akleg.gov](mailto:Sen.Peter.Micciche@akleg.gov)>; Sen. Natasha Von Imhof <[Sen.Natasha.VonImhof@akleg.gov](mailto:Sen.Natasha.VonImhof@akleg.gov)>; Sen. Donny Olson <[Sen.Donny.Olson@akleg.gov](mailto:Sen.Donny.Olson@akleg.gov)>; Sen. Mike Dunleavy <[Sen.Mike.Dunleavy@akleg.gov](mailto:Sen.Mike.Dunleavy@akleg.gov)>

**Subject:** Support the Studded-Tire Tax Increase

Dear members of the Senate Finance and Transportation Committees,

I'm writing to ask for your support in increasing the studded tire tax.

Much has been said for having the oil companies pay their fair share in taxes to the State. An idea that I agree with, however, we Alaskans must also pay our fair share. The owners of studded tires make the choice to use a product that increases the revenue needed for road maintenance and diminishes the safety of our roads. As such, they should pay their fair share to maintain the roads they ruin. Taxing studded tires at \$5.00 per tire is ridiculously low and needs to be increased to better cover the costs of road maintenance.

I spoke with Representative Gara, he mentioned concern for the ability of an individual afford a set of studded tires, an estimate of \$1100. However, I believe owning studded tires is a luxury. When we purchase vehicles, they come with tires that can be used year round. It is not necessary to purchase studded tires to operate the vehicle.

I have been driving in Alaska since I earned by learner's permit at 14 years old. I have never owned studded tires. In large part because the cost to purchase studded tires is cost prohibitive on my budget. It is not the tax that keeps me from purchasing studded tires; I cannot afford studded tires at the current tax rate. The purposed increase in the tax would not keep me from purchasing studded tires. I cannot justify spending money on tires that can only be used in the winter when I own a set of tires that can be used year round.

I have also never bought studded tires because of the damage they cause roads. They create ruts in our roadways that greatly decrease their safety. I have had several experiences that have nearly caused me to lose control of my vehicle while driving on the Glen Hwy and roadways in the Anchorage area. In fact, when my boyfriend and I were driving back into Anchorage from the Valley last week, he nearly lost control of the vehicle due to the tires being grabbed by the studded-tire ruts. A couple years ago, my father nearly had an accident due to a studded-tire rut grabbing his tires near 36th Ave and La Touche in Anchorage.

In a study by the Washington State DOT, 2002, they found that studded tires were no more safe than winter tires such as Blizzaks. In the WA report, they found that studded tires offer no benefit over non-studded tires in winter conditions except icy roads near 32 degrees Fahrenheit. Additionally, an Oregon DOT, study found that drivers increased their speeds with the use of studded tires, thereby negating any benefit studded tires may have.

Something to consider is banning studded tires. As you may know, Wisconsin, Minnesota, and Michigan have all banned studded tire use. Maybe banning studded tires all together would be beneficial to the State. Could the State save more money by having less road maintenance due to studded-tire ruts?

In an ADN article about the proposed studded tire tax, one tire retailer mentioned that online retailers, such as Amazon, do not collect the taxes for studded tire purchase. That can be combated by creating a law similar to what other states are using to collect sales tax from online retailers. Here are a couple of articles discussing this issue:

<http://www.governing.com/topics/finance/gov-south-dakota-online-sales-tax.html>,

[https://www.washingtonpost.com/politics/supreme-court-declines-case-on-making-online-retailers-collect-sales-taxes/2013/12/02/e430ec8c-55f5-11e3-835d-e7173847c7cc\\_story.html?utm\\_term=.6b64e9308afc](https://www.washingtonpost.com/politics/supreme-court-declines-case-on-making-online-retailers-collect-sales-taxes/2013/12/02/e430ec8c-55f5-11e3-835d-e7173847c7cc_story.html?utm_term=.6b64e9308afc)

In conclusion, please support increasing the studded tire tax to help close our budget gap and provide the needed funds to maintain the safety of our roads.

I have attached the studies I mention.

Sincerely,

Jessica Hoffman

**Subject: Studded Tires**

**Reply-To: "Phillip Izon II" <[izon.bank@gmail.com](mailto:izon.bank@gmail.com)>**

I am very supportive of your recent bill to increase the studded tire fee. I have winter tires and they are not studded. The only time that I feel like I do not have control is when driving on the highway. The amount of cars that travel on the roads and the damage to them over the course of winter is also very cost prohibitive. I can't speak for every area of the state, but I have traveled to many of them with my car and literally the only time I feel I do not have control of my vehicle is in high traffic areas. These are also the areas that have the most accidents (e.g. New Seward Hwy to and from Wasilla).

I would go as far as to ban them except for vehicles that need studded tires for commercial or towing purposes. Please let me know how I can support you in anyway.

Thank You,  
Phillip Izon  
CEO  
Cerberus Holdings, LLC

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**From: Douglas Kelsch** [<mailto:dkelsch@me.com>]  
**Sent: Monday, February 13, 2017 11:35 PM**  
**To: Sen. Cathy Giessel** <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject: Support**

Senator Giessel,

I am writing in support of your studded tire tax. I, like you, believe there are safe non-studded tire alternatives that don't tear up the roads as studded tires do. I agree that the Glenn Highway's ruts, which are caused by studded tires, are dangerous.

I believe that in our current fiscal situation user fees such as the one you propose is appropriate in that those who insist on using studded tires would, at least in some part, pay for the damage they do. I think that in our current fiscal situation solutions lie in continued cuts to government, broad based and multiple tax increases (sales tax, income tax, user fees) and complete elimination of the PFD.

On the subject of the PFD: free government handouts during times of budget deficits do not coincide with a fiscally conservative philosophy and serve as a handout that distorts normal market forces. If there is a need for a sector of our society to receive government aid it should be done by means tested government programs.

Thank you for your political courage and willingness to face hard truths during times like these when it is in short supply.

Best Wishes,

Doug Kelsch

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From: Mike [<mailto:mysweeps93@me.com>]  
Sent: Monday, February 13, 2017 9:30 PM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Support For SB 50

Senator,

As a member of your district I wanted to reach out to you after hearing about your proposal for SB50. Myself, and my family, support her proposal to increase the fees on studded tires which cause significant damage to the roads as well as put pavement dust into the air which can cause environmental and health concerns. The technology has advanced in tires that I think the costs far out way the benefit as there are viable alternatives without the negative impact. Her proposal doesn't ban their use, just holds them accountable for the additional damage they do on the roads. Seems fair unlike the burden to the rest of us that do not use them but end up paying for the repairs.

I hope you support this proposal and help get it passed.

Regards,

Mike Borys  
3421 Hines Circle

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From: Richard Koskovich [<mailto:rk2kbay@yahoo.com>]  
Sent: Tuesday, February 14, 2017 10:59 AM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject:

Sen. Giessel,

Thank you for finally taking action on the abuse of studded tires!  
I grew up learning to drive in MN winters and have now been driving AK winters since 1973. I have never owned a studded tire and I get around just fine. Lived 100 miles up the Glenn Highway for several years and up on the bluff in Homer for the past 35 years and I've never had an accident. So not exactly easy 'city driving'!

MN was smart enough many years ago to ban studded tires because of the damage. Modern Snow Tires equal and in many tests out perform studded tires. If icy roads are EXTREME treacherous, people just shouldn't be out driving.

If they insist on studded tires, you are RIGHT ON! have them pay for the damage.

Several years ago I came across the figure of \$15,000,000 per year highway damage in AK from studded tires. I'm sure that is outdated by now, but I think it would be helpful to the cause to get a current figure of damage out there.

Thank you for your efforts!

Richard Koskovich  
Homer, Alaska  
907-235-5405

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**From:** Paul Crews [<mailto:pbcrows@alaska.net>]  
**Sent:** Tuesday, February 14, 2017 2:56 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Tires

I read the article about studded tires this morning. The comment that people would buy them online is troubling. I completely agree with you about ruts. I am willing to pay a tax for my studs but if most people avoid the tax by buying tires from outside we will not gain as much as desired. I think the gas tax should pay for more maintenance. I suggest the gas tax should be very very large...people don't blink much when they fill up.

Thanks  
Paul Crews

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**From:** Richard Hanas [<mailto:richnlouie@gmail.com>]  
**Sent:** Monday, February 13, 2017 7:08 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded Tire Tax

Good call for a large tax on these tires. Soft rubber winter tires such as the Bridgestone Blizzak offer exceptional traction. Now if you justify taxing for road improvements how about money for the UA system???? My daughter has a large scholarship offer to an outside university to study engineering. That university also just got an infusion of \$50,000,000 targeted just for it's engineering department. Although she also has a UAA scholarship, what would be the point of taking a chance on UAA when they are cut to the bone and moral is sagging? Wouldn't greater support for UA be an investment in Alaska?

Richard Hanas

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**From:** Chris [<mailto:reedrad@gmail.com>]  
**Sent:** Tuesday, February 14, 2017 8:40 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:**

Cathy

Nice work on getting the conversation going on studless tires. Might the DOT consider a targeted consumer education campaign in the fall each year for a few years, teaching people about the effectiveness of studless tires? Make it an act of community pride to go studless and save our roads.

Good luck... and don't forget the crime bill. Safety is number one

Chris Reed

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**From:** hdskully [mailto:hdskully@gci.net]  
**Sent:** Tuesday, February 14, 2017 5:20 PM  
**To:** Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
**Subject:** Studded tires

To whom it may concern:

I think your studded tire tax is a step in the right direction. Perhaps shortening the time that they may be used should also be considered. Two to four weeks less in both the fall and spring is very possible.

Thank you, Shane Lee

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**From:** Sam Dennis <sam\_dennis@hotmail.com>  
**Date:** February 14, 2017 at 8:35:27 PM AKST  
**To:** "Senator.Cathy.Giessel@akleg.gov" <Senator.Cathy.Giessel@akleg.gov>  
**Subject:** Studded Tire Bill

I'm a liberal so I'm sure we disagree on a lot of issues but I have to tip my hat to you for having the courage to touch these third rails of Alaska politics, studded tires and taxes. It might be safer to tell people you're going to take their guns away!

The data is pretty clear that studless ice tires are overall as good as or better than studded tires without destroying our roads and it's very clear we can't afford to keep repaving. Thank you for taking the lead on this and I'll support you as best I can with talking to friends and letters/comments in the ADN. Good luck.

Sam Dennis

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**From:** "Fjelstad, Eric (Perkins Coie)" <EFjelstad@perkinscoie.com>  
**Date:** February 14, 2017 at 9:55:25 PM AKST  
**To:** "Sen.Cathy.Giessel@AKLeg.gov" <Sen.Cathy.Giessel@AKLeg.gov>  
**Subject:** SB 50

Senator Giessel:

Thank you for bringing SB 50 to the table. It's long overdue and is the first step in doing away entirely with studded tires. The ruts are a serious danger. I describe a trip down the Glenn to outsiders as like "crossing the wake" while water skiing. Beyond that, we simply cannot afford

to continue to spend this kind of money on the constant road maintenance

I grew up in Wisconsin. Studded tires are prohibited there and in the neighboring state of Minnesota. These are northern states. Lots of snow and ice. Long winters. Do parents love their kids less there? You'll get a lot of resistance on SB 50 from people who sincerely (but wrongly) believe you are threatening their safety. And there will be the tire industry and road contractors who will push hard to keep this sacred cow in the pasture.

Please toe the line. Thanks for your leadership!

Regards,

Eric Fjelstad  
Anchorage  
Sent from iPad

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**From:** LONNIE D BROOKS [<mailto:lonnieinalaska@gmail.com>]  
**Sent:** Wednesday, February 15, 2017 7:21 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>; Rep. Lance Pruitt <[Rep.Lance.Pruitt@akleg.gov](mailto:Rep.Lance.Pruitt@akleg.gov)>  
**Subject:** SB50 STUDED TIRES AND RUTTED ROADS

Senator, I am fully in support of Senate Bill 50 that you've introduced, as reported this morning on KSKA's Alaska Economic Report. In fact I was composing in my mind a message to you and Representative Pruitt in which I intended to propose that in the light of the alternative technology available, such as Bridgestone's Blizzak tires, tire studs either be banned or taxed at 100% of the cost of the tire. I'm sure you're aware that some other states have already banned the use of studded tires. Minnesota bans studs, except for visitors who come in from states that permit studded tires.

The cost of the big increase in road maintenance occasioned by the use of studs, with no significant increase in safety, in all fairness to those of us who have adopted the alternative technology, simply must be borne by those who continue to choose studs.

Thank you very much for introducing this bill, and I hope you can persuade your colleagues in both houses of the legislature to support you on it. If you think there is anything Adriana or I can do to help with this, please let me know.

Regards,

Lonnie D. Brooks  
2020 Muldoon Rd. #344  
Anchorage AK 99504-3683  
Phone 907-333-4529  
Cell 915-491-7646  
FAX 907-332-1400

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**From:** Jessica Hoffman [<mailto:jesshoffman@yahoo.com>]  
**Sent:** Tuesday, February 14, 2017 10:16 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded Tire Tax

Hi Senator Giessel,

Bravo! I'm glad you are pushing to increase the studded tire tax. You read my mind! haha. I also find the deep ruts in the roads created by studded tires dangerous. I have in fact nearly lost control of my vehicle a couple of times while driving due to the ruts catching my tire. In another incident, I was traveling as a passenger with my father driving, when a rut, caused by studded tires, near the intersection of La Touche and 36th in Anchorage, caught the tire of my father's vehicle and we almost had an accident. At the beginning of this month, my boyfriend and I were traveling back into Anchorage from the Valley when he almost lost control of the vehicle due to the studded tire ruts. I have been fortunate so far that I nor others have been hurt during one of these incidents. However, something must change to increase the safety of our roads and have the owners of studded tires pay their fare share of repairing the damage their equipment causes. I also wonder how many of the accidents that have happened on the Glen Hwy have occurred because of the ruts.

In a study by the Washington State DOT, 2002, they found that studded tires were no more safe than newer winter tires such as Blizzaks. In the WA report, they found that studded tires offer no benefit over non-studded tires in winter conditions except icy roads near 32 degrees Farenheit. In addition, an Oregon DOT, study found that drivers increased their speeds with the use of studded tires, thereby negating any benefit studded tires may have. I have been driving in Alaskan winters since I first got learner's permit when I was 14. During that time, I have found that reducing my driving speed allows me to maintain control of my vehicle and studded tires are not needed for safety. As a disclaimer, I have never owned studded tires.

Something else to consider would be an outright ban on studded tires. As you may know, Wisconsin, Minnesota, and Michigan have all banned studded tire use. Would our State benefit from such a ban as well? Would the State be able to save more money by not repairing the roads as frequently than it would gain with the tax? I grew up in the Interior and it seemed that road repairs due to ruts did not occur. It was not until I visited Anchorage that I had ever seen ruts in the road. In trying to fix our budget, maybe consider banning studded tires all together.

I have attached the studies I mention.

Sincerely,

Jessica Hoffman

**From:** David Kranich [<mailto:dave@nusalaska.com>]  
**Sent:** Friday, February 10, 2017 1:48 PM  
**To:** Jane Conway <[Jane.Conway@akleg.gov](mailto:Jane.Conway@akleg.gov)>  
**Subject:** Fwd: Found, the email with stud info which was trapped on my dead computer.

Senator Guissel,  
I applaud your efforts to expose the real cost of tire studs. I am forwarding this email sent to me by a friend which I have shared with Mark Luiken, transportation commissioner. I run a fleet of 12 vehicles year round and run winter tires "blizzaks or equivalent" year round. I see no increased wear over a standard tire in the summer, and have had no accidents that studs would have prevented. We have however had two loss of control accidents caused by stud ruts. We save thousands of dollars each year by keeping winter tread tires on year round, and my drivers feel more secure than with studs that tend to skate in some conditions. The link to the 2014 Oregon study is particularly enlightening if you haven't already seen it.  
Thanks for all you do.

David Kranich  
Northern Utility Services  
907-632-0012

----- Forwarded message -----

**From:** "Raymond M" <[raymondm2@mtaonline.net](mailto:raymondm2@mtaonline.net)>  
**Date:** Dec 3, 2016 8:13 PM  
**Subject:** Found, the email with stud info which was trapped on my dead computer.  
**To:** "David Kranich" <[Dave@nusalaska.com](mailto:Dave@nusalaska.com)>  
**Cc:**

Studs and their cost. This was sent to a Senator who wished for input last year.

If you know someone who might be interested please forward. This was assembled with the help of searching and reading for a few evenings. This was even interesting. The links included refer to the source material. I double checked these links, they appear to be good.

If someone credentialed relating to this field were to estimate costs, with a peer review, I think the information would be quite useful.

Raymond.

**From:** Raymond M [<mailto:raymondm2@mtaonline.net>]  
**Sent:** Wednesday, September 30, 2015 11:15 PM  
**To:** John Wood <[John.Wood@akleg.gov](mailto:John.Wood@akleg.gov)>  
**Subject:** Greetings John, Please forward this to Sen. Mike Dunleavy. Please

Large Budget reducing opportunity Please read and reply with your thoughts.

Stud ruts and Quality of life, road safety and outstanding costs.

Some time ago I researched this a little and was reminded of it again as in the last week I've been in traffic backed up for a 3rd time due to vehicle loss of control due to water in the Stud ruts. This is of course in addition to the spin outs in the winter, slowed driving due to ruts and intersection roughness that substantially slows time in intersections and of course road repair, just in time for Studded tire to go on vehicles again. To me this is serious safety issue as well as property lost or destroyed, and enormous state and city burden.

Tire Studs. Direct costs. Found a recent [study 2014 in Oregon](#). Please open it for review. Pulling some key info out below. I will refer to the page number on the PDF rather than the number at the bottom of the scanned page. In this way, you can type in the PDF page number and go directly there.

Page 5 Section 16. Wear rate of asphalt with 100,000 passes is 0.0295".

Here is how I work out the math to relate it to the cause, ie the Studded tire.

(This is .03 per 50,000 vehicle passes, two tires per vehicle in same track.) Let's convert this to miles.

...Let's say this was one vehicle. My wife's winter tires lasted ~50,000 miles, but are studless. Yes, that's longish, make your adjustments later. If they were studded, that one single set of tires would have removed 0.03 in their life time. If this were just 100 cars, this would be 3 inches of ruts in one mile of pavement. Ok, your saying, usually winter tires only last 25k, so those 100 sets of tires would then on average would cut 1-1/2 inches of rut in one mile of pavement. Oregon uses a max limit of 0.75" depth before repaving, of course you can't pave just one lane easily, let's go with that. So it only takes 50 sets of tire studs to kill one mile of pavement. Cost per lane mile in Oregon is (26,282,169/200.53) Page 46 Asphalt cost for 200.53 lane miles. For studded tires to pay for themselves, \$131,063.53 per lane mile / (50 cars x 4 tires) = \$655 per tire tax. It get's worse.

Safety. Key important points. Page 20 Item 1. Excerpt. "Studded tires produce their best traction on snow or ice near the freezing mark and lose proportionately more of their tractive ability at lower temperatures than do studless or all season tires." Continue reading for more info.

Item 3, specifically cites Alaska. I'd like to find this study. On clean ice there is a 15% advantage.

My opinion, most of the winter is colder than borderline freezing, where studless do better.

Item 4, cites Blizzaks in Alaska offered better traction..

Item 5, Studs had worse traction on pavement. (I might add while grinding the pavement away)

Page 50. Specific note. The second to last sentence, "Approximately 46 percent of the total

statewide costs occur in Region 4 with 98 percent of the costs attributed to asphalt, which has relatively low volumes but high studded tire use. " (This sounds like all of Alaska.)

When on the phone, reference information found in this Oregon study, but it has been superceded by the one referenced above. Good news is, studs aren't as expensive as they were, it's direct repaving costs are down to just \$655 damage per tire. Does not include all of the other costs.

Math. How long a road will last without studs. -minus- how long a road lasts with studs. The Cost difference should be applied directly to a studs tax. Remember how long ago it was when the Parks and Glenn highway bridges were put in. They are repaving it now, and the recent rain, is blowing new potholes due to ruts. I doubt the debt was paid off on this road already.

Here's a national breakdown of Alaska's ranking. We are 49th least cost effective. Considering the bloated road budgets found nationwide, achieving a 49th most cost effective is somewhat of a statement!

What makes studs worse? Going faster increases impact damage, stopping, accelerating, going around corners, using heavier studs than the lightest, using studded tire with higher counts of studs.

Summary. I don't have Alaska numbers. Actually, it's hard for me to consider this hasn't been done by some engineer. Beyond that, there is still more. Loss of control due to stud ruts, by hydroplaning, by changing lanes in the winter and getting spun out, even flipped over in the winter. Loss or damage of vehicle, cost of healthcare either direct to state or indirect, cost of insuring vehicles, excessive road work, excessive delays because on road work, excessive state deficit and prolonged debt. Still doesn't include pothole repair and other repairs, nor bridges, nor city costs, especially at stop lights. For the environmentalists, each lane mile paved might be equal of 1200 tons of CO2 produced or saved by not resurfacing.

Putting a number on this is hard, because, it's not easy to locate information and what is found can be argued if someone wants to. Whatever I have found, suggests studs have a staggering cost. Put a number on that, and lets reduce the budget.

Tire studs. While an outright ban might be too much, I want the costs publicized and then tax them. There isn't a chance a tax could pay for all of the ruts ground into the tarmac.

The tax should be PER STUD with a sticker on the window for each year they are paid for. Old tires should not escape and prevent studding over the internet. Even if there were a \$1 per stud fee for every new stud, that would save some huge money on repairing the roads. With each tire having 100 studs and some many more, people with think twice before signing up for a quad row asphalt grinder on each wheel-well.

Other ways to reduce these outrageous costs, we largely drive on snow free roads from middle of March on, do we really need more months of asphalt munching? Days studs are prohibited 5/1-9/15= 137 days, or 228 days with studs. Well over 7 mos. Can the date which studded tires can

be put on modified, in the same way Fish and Game watch fish and game. Road people should watch the weather adjust times. Seeing people driving for several months with no snow chiseling up the road is just distracting. Banning them entirely might be more logical, however, that might be too controlling. Count the cost. Start advertising with info. Then add tax per stud. Reduce dates.

Normally there is a state fee 2.50 per tire.

Existing Heavy Stud fee The 5 fee per tire for heavy studs does not seem remotely responsible. A heavy stud doubles the road damage. These heavy ones should be banned, have no benefit.

As much as I dislike it, consideration for a \$25 bounty for studded tires removed from rims when replaced new studless tires, waive the 2.50 new fee for this purpose.

Thanks for serving Raymond Miller.

PS. Here is a side note. Found New Winter tires largely only wear faster above 45°. Ground temps are 41° deeper down in our area. Our test. So purchased Blizzaks for my wife's Ridgeline. Drove through last Winter, we left them on for this Summer. She drives in early mornings and evening when it's cooler. Almost no detectable wear for the first Summer. Forecast. We will be leaving Winter tires on Year round, and saving \$100 swapping tires every year, and just buy new ones every 3 years instead of tire change fees and a little bit.

From: woods\_niles [[mailto:woods\\_niles@sdsl12.org](mailto:woods_niles@sdsl12.org)]  
Sent: Wednesday, February 15, 2017 3:49 PM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Stud Tax and HB 115

Cathy,

I very much support your \$75 tax on each studded tire sold!

I also hope that you support the Senate Bill that corresponds to HB 115, on solving our fiscal imbalance!  
We need to balance our State Budget!

Thanks! Niles

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From: "afn@yahoo" <[afn16755@yahoo.com](mailto:afn16755@yahoo.com)>  
Date: February 15, 2017 at 6:36:50 PM AKST  
To: "Senator.Cathy.Giessel@akleg.gov" <[Senator.Cathy.Giessel@akleg.gov](mailto:Senator.Cathy.Giessel@akleg.gov)>  
Subject: SB 50  
Reply-To: "afn@yahoo" <[afn16755@yahoo.com](mailto:afn16755@yahoo.com)>

Sen Giessel,

Please allow me to say that I am opposed to any type of user tax. Having said that, I feel that a better approach is to eliminate studded tires altogether. Studded tires give you a false sense of security (like driving a 4x4) and do more damage to our roads than non-studded tires. Other states have eliminated them, it's time for Alaska to follow suit.

thank you

detlef wanke

palmer ak

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From: William Sola [<mailto:wmsola@yahoo.com>]  
Sent: Thursday, February 16, 2017 10:37 AM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Studded tire issue

Hello - Although I am not in your district, I too feel that studded tires pose several problems, ranging from excessive road wear to increased air pollution.

Perhaps you've already discussed this, but I feel that metal studded tires are the real culprit here.

Why not consider banning metal studs altogether, as they are not superior to the newer "stud-less" snow tire technology as seen on such brands as Blizzak, Nokian, Michelin, etc.

They are not that more expensive than standard studded tires, and the burden of road wear is traded off from the public to the private sector, with no monetary "penalties" from the state.

Regards,  
William Sola  
Anchorage

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**From:** Carmen Gutierrez [<mailto:ave2cg@gmail.com>]  
**Sent:** Thursday, February 16, 2017 1:41 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Re: Please support HB115

Senator Giessel,

First, I would like to tell you that I support your effort to raise the fee on studded tires. Studs cause tremendous damage to our road systems which results in great expense to the state & municipalities. I believe this is just one of many examples of how Alaskans have grown accustomed to not paying for infrastructure used.

I will respond in another email to the Senate's goals and objectives outlined below. I oppose a constitutional spending cap and believe the other measures outlined will not be sufficient to bridge the budget gap.

Thank you,

Carmen

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**From:** Judith Brendel [<mailto:loonranger4@vahoo.com>]  
**Sent:** Friday, February 17, 2017 10:40 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** kudos to you

Kudos to you for having the guts to propose the tax on studded tires. It is good to see someone willing to take an unpopular stand - too often legislators are working on getting reelected rather than work on governing.

Thank you, although I am not convinced studded tires are the only cause of ruts in highways, the ruts are dangerous. Maybe the highways need to be built better.

Again, thank you for having the backbone to address unpopular subjects.

Judith Brendel

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**From:** John Mahaffey [<mailto:johnmahaffey@email.com>]  
**Sent:** Friday, February 17, 2017 1:09 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** support studded tire tax

I was disappointed that you dropped the tax from \$75 to \$50 but recognize it will help get it passed. I strongly support this tax, our roads suffer greatly due to studs and it is way past time stud users help to pay for the damage. Please get this tax pushed through. John Mahaffey, Anchorage

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From: Bob Redlinger [mailto:bob.redlinger@gmail.com]  
Sent: Sunday, February 19, 2017 1:12 PM  
To: Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
Subject: SB50

Good day Senator Giessel,

You have sponsored SB50, the additional tax on studded tires. I'm sure studded tires do affect our roads, so do we have any current studies that show how studded tires affect our roads? My major concern is if there is an increase in tax on studded tires, can those monies be directed to our state road maintenance? I know as of now the tax proceeds cannot be dedicated to one item. I live on the Hillside and commute weekly to Seward and the road snow removal for Hillside, O'Malley and the Seward Hiway the last couple of years has continually gotten worst.

I support the tax if the studies show studded tires affect the roads and the additional monies can be dedicated to improving road snow removal.

Thank you for your time.

Robert M Redlinger

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From: Kit [mailto:kith@gcl.net]  
Sent: Sunday, February 19, 2017 10:25 AM  
To: Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
Subject: Income tax/ PFD bills

Dear Senator Giessel,

Kit and I want to thank you for your hard work in trying to fix the budget problems that our state is experiencing. We both agree with your bill to tax the studded tires as they cause accelerated wear on our highways. We went to the soft studless snow tires a few years ago and find them perfectly fine in most conditions.

Our primary concern right now is the attempt to impose an income tax on working Alaskans without the total elimination of the PFD program. We feel it is an illegal bill that can be challenged based on income redistribution. The state would also have a new costly program to manage. We are both retired and have limited ability to make up for the loss of spending ability this would cause. We do not want to leave Alaska but would seriously consider this option if an unjust PFD/income tax bill were to pass. Please follow my logic here. Say the PFD

payout was 500 million and the income tax collects 500 million. This seems to take from the "rich" and redistribute my money to others with no basis of need(welfare). How can this be legal? I have always been against the PFD giveaway and would love to see it end. It is bad PR for the state and attracts some to Alaska who may think they can live here for free". *Thanks again for your efforts! Darrell and Kit Holmstrom, Anchorage, Ak 99504*

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**From:** Mark Bloch [<mailto:mbloch18@comcast.net>]  
**Sent:** Saturday, February 18, 2017 4:53 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Constituant Feedback

Dear Senator Giessel:

I wanted to give you my views on some issues that you will be addressing in the upcoming weeks.

Concerning your call for a tax on snow tires, I applaud your goal of eliminating studded tires in Alaska. This being my fifth state of residency, I am almost certain that we are alone in allowing their use. I am also aware that you have modified your original proposal but I think that the only way to achieve this goal is to increase the gasoline tax so that we can rebuild our road infrastructure. Those who use the highways (meaning drivers) should be responsible for maintaining them and for building new ones. This also includes those operating electric vehicles wherein I would suggest a yearly vehicle tax equivalent to the average tax paid by Alaskan gasoline consumers.

The most important issue facing our great state is of course the budget and I would strongly urge that no other business take place until this issue is resolved. Going into extra innings is not a good way for the legislature to structure their responsibilities.

Most of the Governor's proposal as well as that presented by Representative Paul Seaton and others are good starting points. We all have to share in the load and those of us (including my wife and myself) of means do need to bear a greater role than those of lesser means. That is not a political statement but what I would consider an ethical and moral view point. Continued cutting of the state budget will only lead to a deeper recession and a longer one. Cuts to safety (like our State Troopers), health and education will only exacerbate the problem of attracting families to move to Alaska. Families with school age children will seriously take our school systems into account in making relocation decisions. And yes this does mean that the PFD will have to reflect more closely on what was paid out in 2016.

Alaskans who are home owners will also find that their home values will decrease (the market of supply and demand) as the demand continues to decrease (I just spoke yesterday with someone very involved in this field and the trend is continuing on the down swing).

Recently I purchased an expensive camera as a gift for my daughter in Colorado and had to pay almost \$50 in Colorado State Tax. I don't have a problem with that because I know that the money is needed to run the Rocky Mountain State. I want my daughter's family to be safe, live where schools are excellent and be provided all the necessities that Colorado provides.

We live in a country with sharply divided political views but perhaps you can help to lead the way by providing a comprising leadership role in this very difficult situation that we find ourselves facing. I hope that you will reflect more on this than on how many would balance their vote on how it will reflect on their re-election.

Thanks for taking the time to read my comments.

Sincerely,

Mark Bloch

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**From:** Sue and Wes Tonkins [<mailto:w.s.tonkins@gci.net>]  
**Sent:** Sunday, February 19, 2017 5:12 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded Tires

Honorable Cathy Giessel  
State Capitol  
Juneau, AK 99801

Dear Senator Giessel,

My name is Wesley G Tonkins. I live in the Eastbrook Subdivision in east Anchorage.

A year ago I sent you an email suggesting eliminating studded tires or charging a large enough tax on them to encourage drivers to switch to studless winter tires. I want to thank you for recently proposing legislation to tax studded tires.

Thanks for following up on my suggestion last year,

Wesley G Tonkins  
7555 Eastbrook Circle  
Anchorage, AK 99504

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Kenneth Huckeba  
6920 E Wolf Lake Rd  
Wasilla, AK 99654  
907 227 6390

February 15, 2017

Kathy Giessel  
Alaska State Capital  
Juneau, AK 99801

Dear Senator Giessel,

I am writing a letter of encouragement to you for your efforts to tax studded tires to enhance the ability to repair the damage done by these tires.

I commute from Wasilla to Anchorage every day of the week. In the summer, I use my motorcycle. Having thousands of miles of experience with the ruts, I'd like to offer some observations.

On both my four wheel vehicles and my motorcycle, the ruts are a severe hydroplaning hazard when it rains. The ruts, particularly on any slopes and turns where they are deeper, actually become small creeks filled with water. This is hazardous in a truck or car because of hydroplaning and jerking the vehicle abruptly to one side or the other. On a motorcycle, it can be deadly because one can not even think about crossing over the lanes for any reason, emergency or not, when it is raining hard.

When it is icy, the ruts cause the vehicle to shift abruptly breaking tires traction and causing spin-outs, I've seen this many times, studded tires or not.

I'm not sure if there's a study or not, but I've seen many accidents in close proximity to stud-induced rut areas.

In short, any safety considerations for the use of studs could easily be cancelled by the safety concerns caused by the ruts resulting from their use.

I've heard many statements about asphalt hardness. There's an urban myth the cause of the ruts is some specially utilized soft road material. I believe this is misinformation and it would be good to educate the public about the facts concerning stud use and road wear.

I've also heard that there is a small percentage of people who actually use studs. If this be the case, are stud proponents worth the damage they cause?

I believe studded tire drivers ride faster than they should in mixed traffic. This false sense of unlimited traction makes people drive too fast for conditions. On the Glenn and in town, studded tire drivers go much faster than others around them. This causes a dangerous condition all unto its own.

All in all, for safety's sake, and for wear and tear on the roads, we need to not simply tax studs but eliminate their use entirely as other states have actually done.

Sincerely,



Ken Huckeba

February 26, 2017

3409 Bailey Blvd  
Ketchikan, AK 99901

Senator Cathy Giessel  
State Capitol Room 427  
Juneau AK, 99801

RE: SB 50 Studded Tires

Dear Senator Giessel,

I am writing in support of SB 50 which proposes to raise the fees on studded tires. Previously I was a regular user of studded tires. However, around 5 years ago I switched to the newer technology winter tires without studs and have noticed no appreciative difference in traction. Our house is located up basically on a hillside with a very steep driveway and so if studded tires improved our ability to get up and down it I would utilize them.

I see our local roads deteriorate in the winter and I know studded tires play a substantial role in their demise. An expensive demise for sure.

I appreciate your efforts to help maintain our roads by introducing this legislation.

Regards,

A handwritten signature in black ink, appearing to read "Barry D. Christensen, RPh". The signature is fluid and cursive, with a long horizontal stroke at the end.

Barry D. Christensen, RPh

# ALASKA STATE LEGISLATURE

## SENATE TRANSPORTATION COMMITTEE

Senator Bert Stedman, Chair  
State Capitol, Room 30  
Juneau, Alaska 99801-1182  
(907) 465-3873 Phone  
Sen.Bert.Stedman@akleg.gov

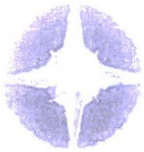


INTERIM  
1900 1<sup>st</sup> Ave., Suite 310  
Ketchikan, AK 99901-6442  
Phone (907) 225-8088  
[www.BertStedman.com](http://www.BertStedman.com)

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SB 50

Letters of Opposition  
As of March 6, 2017



February 20, 2007

Senator Bert Steffan  
Transportation Committee Chair

I am writing to you in reference to Senate Bill 50 and would like to go on record opposing this bill.

Our Alaska tire dealer members have a responsibility to provide their customers with the best safety for winter driving; studded snow tires provide that added assurance. If SB 50 is passed into law it gives safety to only those who can afford the extra \$50 dollars per tire, which in most cases turns into \$200 for a set of 4 tires.

We realize that Senator Giesel has reduced the fee in her substitute bill from \$75 per tire to \$50 per tire; however we still believe that this added expense will be costly and very unfair. Not only is it unfair to the growing young families who in many cases need these tires on more than one vehicle, but it is also unfair to the senior citizens who are on fixed incomes and who need these tires to safely get to and from medical appointments and other needed trips.

Senator Giesel has also changed the weight of the studs from 1.1 grams to 0.5 grams, which would include the lightweight studs that are more road friendly. We are certainly not in favor of this change.

We do appreciate the fact that Senator Giesel has listened to our concerns of online sales, however there is no provision for enforcement of the fee. Currently states are finding it impossible to collect sales tax on online sales, so how much more difficult will it be to collect this \$50 per tire fee from the online merchants who ship from outside the state.

Thank you in advance for listening to our concerns about this bill that we believe would have an adverse effect on the safety of Alaska's driving public.

Sincerely,

Richard Nordness,  
Executive Director

David Scott

**From:** Chelsea Lindquist <chelserin@gmail.com>  
**Sent:** Friday, February 17, 2017 7:15 PM  
**To:** Sen. Bert Stedman  
**Subject:** Proposed Studded snow tire tax

Today I read about the proposed tax on studded tires and would like to express my opposition to this tax.

First of all, the proposed increase - from \$5 to \$75 per tire - is extravagant. Studded tires are not a luxury item. They are an essential safety measure for winter driving and they need to be an available option for all Alaskans. For many people in Anchorage, not to mention those in the rest of the state, spending an additional \$275 on tires would be a hardship, and could even keep them from getting studs at all. Having cars on the roads without proper winter tires would be dangerous for everyone and could result in an increase in accidents, which would increase time and money spent by our police and ambulance workers. Not to mention the increase in insurance premiums.

As an elected public servant you need to be working to help all Alaskans to have more options for making safe decisions. Instead this proposed tax penalizes the middle and lower income residents.

As an alternative revenue source I am very supportive of house bill 115, using permanent fund earnings and implementing an income tax. I also strongly believe that we need to curb the amount of money we are giving to oil companies in the form of credits and subsidies.

Please oppose this proposed tax on studded tires. It is misguided and will only hurt Alaskans economically and make our roads less safe.

Thank you for your time,  
Chelsea Vukovich  
99516

From: <mmsquito@me.com>  
Date: February 8, 2017 at 7:37:53 PM AKST  
To: Senator Cathy Giessel <sen.cathy.giessel@akleg.gov>  
Subject: Studded Tire Tax is a mistake

Hi Cathy,

I heard today on the radio that you have sponsored SB50 to tax studded tires \$75/tire. This is a mistake! As it is drivers use worn or summer tires in the winter, that contribute to accidents. A studded tire has the potential to add just a little bit of traction to control a vehicle. Without studded tires more members of our families will be involved in head on collisions that will kill some of us! No doubt your bill will further discourage drivers to buy studded tires and it will do little to preserve the roads.

In my past I used to work for Wilder Construction and was paid to resurface prematurely worn out roads and even then I thought it was a waste. I worked with John Lambert (Wilder Paving Superintendent) who was a member of an alliance or committee that met regularly to discuss paving issues in the state. John was in direct contact with Newt Bingham who tried all kinds of things to improve asphalt surface wear with little or no success ( Ex: Stone Mastic mixes of all kinds, special hard rock from Cantwell, various polymer blends, rubberized asphalt, etc.).

Having paved for a long time in Alaska, John told me (15+ years ago) that at the time there were three roadways that had been paved with Chevron Asphalt oil that were still in use. I recall one of them being A Street between 15th and Northern Lights Blvd. (high ADT) which had held up way beyond the 5-7 years (I think about 20+ years) we are getting with all the various new mixes out there using polymer modified asphalt oil from Alaska North Slope crude. You see before we had our own asphalt oil made by Tesoro in Nikiski, Chevron imported asphalt oil made from Venezuela crude oil.

There used to be people in the industry like John Lambert who paved a lot of roads over a whole career in Alaska that knew that the oil was the factor in the mix that changed. Newt Bingham couldn't get the Chevron oil for various reasons and tried everything else and borrowed what ever idea he could from other places like the Nordic countries.

I have seen Dimond Blvd ruts within 1 week of fresh pavement without one studded tire ever touching the asphalt. I have milled a stretch of Bragaw just north of the Glenn Hwy adjacent the Red Apple grocery store where the asphalt roadway was dripping (flowing down hill) over time in excess of 18" as measured from a vertical valve box. I have seen many many examples of rutted roads where the the asphalt was higher than the paved surface in the middle of the lane and again at the concrete curb. **I DON'T THINK STUDED TIRES CAUSE ASPHALT TO GROW OUTSIDE OF THE WHEEL PATHS!** I also acknowledge that studded tires do not improve the life of asphalt either.

There are also subbase issues at play as well (the gravel below the asphalt).

So, I felt that it was my duty to forward this information to you. John Lambert would be an excellent resource if he is still out there. I have high regard for your husband Rich, and I suspect that he is convinced that studded tires are the problem with his materials background, but he is wrong given that we used to have roadways with high ADT that lasted a long time. Please forward this email to him and I would be happy to share any further information but I pretty much spilled my guts from what I can recall, and I confess that I am not an asphalt expert. But then again I don't have to be a Climatologist to know that our planet has been warming since Noahs flood, with fluctuations of course.

Please reconsider and withdraw your bill.

Sincerely,

Marc Guzik  
907-268-1956

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**From:** Stacey Dean [mailto:SDean@graylingconstruction.com]  
**Sent:** Thursday, February 09, 2017 9:14 AM  
**To:** Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
**Cc:** Cody Lee <CLee@graylingconstruction.com>  
**Subject:** SB 50 Increased Studded Tire Fee

Good morning.

I wanted to let you know that right now my cost to put a set of studded tires on my company vehicles, most have dualies, is \$30. Now you are interested in increasing this to \$450/vehicle. Wow is all I can say. We have the lowest gas tax in the nation, yet you hit tires with a sledge hammer. This tax will only delay purchases of tires by people who need them because they can't afford to pay the \$450. Studded tires are a safety item. Often they are the first purchase that new comers to Alaska make. Don't ask new comers to delay the purchase of studded tires due to this super high tax.

My suggestions are do one of the following:

1. Add \$25/vehicle for registration – consumer vehicles
2. Add \$50/vehicle for registration – commercial vehicles
3. Add \$.05/gallon for gas tax
4. All of the above

Do not gamble on whether people will replace a very important safety item like studded tires. In the winter studded tires are sometimes that only thing that keeps people alive. Do not make studded tires so expensive that people gamble on other's safety. Remember that next time you here are about a head on collision caused because someone didn't have studded tires. Studded tires save lives...

Sincerely,  
Stacey Dean, ASID  
Grayling Construction  
7133 Arctic Blvd Suite 3  
Anchorage, AK 99518  
907-344-5733  
[www.graylingconstruction.com](http://www.graylingconstruction.com)

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**From:** David Roe [mailto:dardevil\_68@hotmail.com]  
**Sent:** Friday, February 10, 2017 9:50 AM  
**To:** Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
**Subject:** SB 50

Senator Giessel,

As a constituent in your district, I was pleased to have voted for you, because I believed you had the best interest of your constituents in mind. Today I read about your desire to increase the tax paid for studded

tires. This is exactly the opposite of the best interest of your constituents. Yes, fixing roads costs money, and yes we are in a fiscal crisis, but this is the worst plan conceivable to try to pay for road maintenance. Maintenance is not more important than safety, and that is what this \$75 per tire tax does. I understand that you spend the majority of the worst road conditions in Juneau where things aren't so bad, but here in Anchorage, and many places across the state, having studded tires SAVES LIVES. When you overtax something like this, you create a situation where a person must choose to either spend the extra money (which many do not have) or to drive a vehicle with less safe tires. I don't know how many people I've seen with so-called winter tires spinning them on the road in front of me or fishtailing down the road or losing control around corners, while studded cars make these exact same conditions and speeds much easier and safer. When you force someone to choose to not drive studded tires, you have put every one at risk of being the one that is injured or killed when that person loses control of their vehicle. The more people who are forced to make this decision due to your desire to tax the studs, the greater the risk to the entire populous, including myself and my family. I implore you to reconsider this bill and drop it before it goes any further. Passage of this bill will present a clear danger to your constituents.

David Roe  
Anchaorage AK

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**From:** Ruth Andersson [<mailto:ruthmand@alaskan.com>]  
**Sent:** Friday, February 10, 2017 9:03 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded tire fees

Sen. Giessel,

I am one of your constituents living on the upper hillside and very unhappy with your proposal. We live on a steep road and have a rather long and steep driveway requiring studded tires many times a year, particularly the past two winters when we had nothing but ice on our roadways. We have lived in the same home for close to 40 years and I remember the days before studded tires were available. To get to work every morning we had to put on chains to get down to Hillside Dr., then take them off on the side of the road. I kept a snowmachine suit in my car to put on over my work clothes so I could crawl under the car to remove the chains and put them back on on my way home in the evening. Studded tires were a salvation!

Being aware that studded tires were blamed for road damage I started taking note. Some years ago, Hillside Dr. was repaved in early summer. By the time fall rolled around there were already grooves back in the road. I was quite surprised and started paying closer attention. The same thing happened to the New Seward Hwy. after repaving. All this leads me to conclude that the problem with the grooves in our roads probably has absolutely nothing to do with studded tires and most likely is due to the makeup of the asphalt laid down or the preparation of the roadbed. I strongly urge you to investigate those issues. The asphalt companies have a vested interest in putting down new paving that doesn't last very long, don't you think? There is a small stretch on the New Seward Hwy. just north of the Dimond interchange where some different type of material is on the road and it seems to be holding up much better than the regular roadbed,. I suggest you to look into that.

And then there is the very definite safety factor that comes with having studded tires. This is a regressive tax that punishes those of us that may not have the means to pay an additional \$275 per set of tires, an obscene increase by the way, and still need the studded tires to get around safely. We are seniors and live on a limited income which is already a challenge in Alaska. We also expect to be able to drive safely and expect others to be able to do so as well without outrageous surcharges and/or taxes.

And lastly, if the money collected were to go into a dedicated fund for rutted road repair, proven to be caused by studded tire damage, that would be one thing but we all know that is not a possibility by law. So, basically you are proposing that those of us that require studded tires to leave our homes chip in an additional \$275 to the general fund. Do you realize the absurdity of that?

Your job is to cut spending across the board. You can start by cutting boards! Cutting spending on government agencies and departments. When you have done that with a sharp knife move on to government subsidies. Contract out services wherever possible. Why can we taxpayers see the excess and you cannot? Investigate why some of our roadbeds are more prone to rutting and look into using better materials or methods, and so on. That is your job as my representative in Juneau.

Raising taxes and finding sneaky ways to collect more money from us citizens should be the last item on your to do list. As someone who has voted for you every time your name has been on the ballot, I have to say that at this time I am very, very disappointed in you and I do hope you will reconsider and withdraw this poorly thought out bill.

Ruth Andersson  
12921 Midori Dr.  
Anchorage AK 99516

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**From:** Nancy Perry [<mailto:nancvp@ak.net>]  
**Sent:** Friday, February 10, 2017 8:18 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Senate Bill 50

Dear Senator Giessel,

Please do not support Senate Bill 50. Making safety more expensive is not what Alaskans need. When people opt not to have studded tires they not only put themselves at greater risk for injury and death but also all the people around them, drivers, pedestrians, and cyclists alike. Someone who can't stop when they need to because they couldn't afford and extra \$300 could cost me my life. Please look for remedies to the budget crisis which do not risk lives.

Sincerely,  
Nancy Perry

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**From:** [lmarkov@gci.net](mailto:lmarkov@gci.net) [<mailto:lmarkov@gci.net>]  
**Sent:** Saturday, February 11, 2017 8:44 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded tires

I strongly

Disagree with your studded tire tax. This only make roads less safe as this gives an extra amount of needed traction on ice and snow. I would suggest raising the fine to \$250 per tire for the folks that choose to drive past the legal date. I would hope law enforcement would even catch my own son who has summer tires already mounted but is too lazy to change them out.

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Sent from [Mail](#) for Windows 10

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**From:** Patrick Hartshorn [<mailto:patrick@alaskan.com>]  
**Sent:** Saturday, February 11, 2017 8:11 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Tax on studded tires.

Dear Senator Giessel;

Please reconsider SB50 if in fact it is what was relayed to me. I was told it included a \$75 tax on studded tire purchases?? If so, please do some research, contact high end superintendents of major construction projects, studs are not the problem, lack of funding is! Everyone jumps to conclusions that Studded tires cause the ruts in our road systems, not true, or at least probably 95% not true. Ruts are caused by weight and poor quality materials, partially due to the softer products used due to our weather changes. There are much better products and methods on the market but no one uses them due to reduced budgets on these highway jobs. Studded tires are a minimal wear issue yet are a huge life saver to those that use them properly, without a sense of security motivating stupid driving habits. Studs are proven to provide better traction and stopping power to avoid initial loss of traction and more positive stopping when presented with an emergency. Taxing studs will only stop the sale of studs and could lead to more safety issues, is that what your looking to do???

Thank you for your time and consideration into this matter.

Pat H.

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**From:** Chelsea Lindquist [<mailto:chelserin@gmail.com>]  
**Sent:** Friday, February 10, 2017 9:42 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Tax on snow tires

Senator Giessel,

Today I read about your proposed tax on studded tires and would like to express my opposition to this tax.

First of all, the proposed increase - from \$5 to \$75 per tire - is extravagant. Studded tires are not a luxury item. They are an essential safety measure for winter driving and they need to be an available option for all Alaskans. For many people in Anchorage, not to mention those in the rest of the state, spending an additional \$275 on tires would be a hardship, and could even keep them from getting studs at all. Having cars on the roads without proper winter tires would be dangerous for everyone and could result in an increase in accidents, which would increase time and money spent by our police and ambulance workers. Not to mention the increase in insurance premiums.

As an elected public servant you should be working to help the people of you district, as well as all Alaskans, have more options for making safe decisions. Instead this proposed tax penalizes the middle and lower income residents.

As an alternative revenue source I am very supportive of house bill 115, using permanent fund earnings and implementing an income tax. I also strongly believe that we need to curb the amount of money we are giving to oil companies in the form of credits and subsidies

Please reconsider your proposed tax on studded tires. It is misguided and will only hurt Alaskans economically and make our roads less safe.

Thank you,  
Chelsea Vukovich  
Anchorage, 99516

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From: Curtis Smith [mailto:bogusaddy1@gmail.com]  
Sent: Sunday, February 12, 2017 10:57 AM  
To: Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
Subject: Opposed to SB 50

Dear Senator Giessel,

I would like to express my adamant opposition to increasing the tax on studded tires (SB 50). I have yet to see conclusive evidence that non-studded tires are just as safe as studded tires, and those tires for which there is scant evidence of having nearly the same degree of safety are often too expensive for many Alaskans. Simply put, studded tires provide an affordable safe option. SB 50 would make Alaskans choose between their wallets and safety. It would be a shame if even one additional person died or sustained an injury because they were forced to purchase tires they could afford at the expense of increased safety.

Sincerely,  
Curtis Smith

7011 Gibbs Hill Cir  
Anchorage, AK 99504  
907-240-2640

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From: Bobbie Cook [mailto:cook\_bobbie@hotmail.com]  
Sent: Monday, February 13, 2017 9:56 AM  
To: Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
Subject: Studded Tires

I am outraged by your proposal to increase the tax on a single studded tire from five dollars to seventy five dollars. This seems like a money gouging plan to fatten the state budget at the expense of safety. Our icy road conditions can persist up to 6 months a year. With global warming comes the unpredictable weather patterns we have been experiencing in recent years. The snow covered roads of the past are being replaced with far more ice covered roads today. While icy road conditions are becoming more prevalent, the road maintenance cuts have left us with less snow removal, less sanding, and far less safe roads.

I have listened to people who refuse to buy studded tires for the last thirty years. They claim that the tire ruts in the roads are caused by studded tires. However if one examines these ruts more closely,

they will find that these ruts are not produced from surface wear. If that were true all of the ruts would show subsurface structure showing through the ripping up of the top surface. Instead these ruts are caused by compression from the weight of traffic on a road bed without significant substructure. Alaska's road surfaces are built over areas of tundra and marshes most often lacking in bedrock construction in other states.

This type of tax proposal is hazardous to the safety of Alaskan Drivers. It should not be considered without significant studies, road maintenance, and construction. Another study to consider would be how many people with studs vs. without studs incur traffic accidents each winter. Consultation with insurance companies would also be significant.

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**From:** [thirdeye@alaska.net](mailto:thirdeye@alaska.net) [mailto:[thirdeye@alaska.net](mailto:thirdeye@alaska.net)]  
**Sent:** Monday, February 13, 2017 12:57 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Senate bill 50

Dear Senator Giessel:

Regarding your recent Studded tire tax proposal. Senate bill 50

Regarding the issue of burdening yet another tax on Alaskan citizens to the tune of \$300.00 for every new set of studded tires that they decides to purchase

The first problem that I have with this new tax proposal is the irrefutable issue of its effect on potential life endangerment. For the record, it is true that several of the newer tires do have increased grip ability on winter roads. But any 5 year old knows that those tires may work on several types of road conditions, but not on the most severe types of black ice, and marginal road surfaces.

I live in Girdwood, and have been navigating the town of Girdwood, and the Seward highway now for 45 years. Just 3 years ago, I had my first every single car accident on my way to town near milepost 107. My speed was 52 mph, and the conditions were slick, but nothing that I had not previously encountered hundreds of times before. About half way around a long corner, my rear end slid out, I fishtailed twice, and slammed into the rock wall on the side of the highway.

After careful investigation, it was simply because my studded tires had worn out, and were no longer able to provide the grip, that new studded tires would have afforded me. Neither my speed, nor the conditions, nor my driving skills were the problem. I could very easily have slammed into another car or truck, and cause a major accident or even a death, simply due to worn out studded tires.

My second issue with this proposed tax is the effect that it will have on individuals, and families that simply cannot afford this new "luxury" tax to be able to buy these tires, and protect their families safety while on the roads.

My third issue concerns the issue of what happens when a person purchases a set of new studded tires at \$900.00, and then hits a rock on the Seward highway, and ruins one of the tires. He or she returns to the tire shop only to be informed that they cannot simply replace the one bad tire, and they must by law replace the entire set? This is currently a huge issue with today's tire stores, and its clients. So one destroyed tire could cause a driver to have to spend an additional \$900.00 on yet another

set of tires, thereby imposing severe financial hardship on every driver who simply wants to enjoy a safe driving experience.

My final issue involves the imposition of a tax on me and thousands, perhaps tens of thousands of your constituents, so that damage to our roads can be repaired.

But, if I for example on a normal week, make a single trip to Anchorage; that works out to be roughly a 80 to 100 mile round trip. But compare my driving habits to the Valley commuter from Wasilla who is spends 5 or 6 days a week on the Glenn Highway, and maybe 2 hours of every day driving around Anchorage. Or a delivery truck on a constant route around town, or a fleet of Taxi's, and Pizza delivery drivers who spend 12 hours a day on our roads?

Your proposal severely penalizes me, the occasional driver, who lives on a limited Social Security income, for the excesses of thousands of other drivers. This is neither prudent, nor fair.

Thank you for your attention to this issue, and I desperately urge you to drop this usury tax, as in the end it will literally cost lives in the long run, and save a few dollars in the short term.

Thank you for your consideration.

Sincerely,

Randy Brandon

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**From:** Susan Williams [mailto:smwilliams@eci.net]  
**Sent:** Sunday, February 12, 2017 10:19 PM  
**To:** Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
**Subject:** SB 50

Dear Senator,

I am opposed to the proposed fee on studded snow tires. It is a tax on safety and the middle class. A \$75 per tire tax on installation would be \$300 per season on top of the cost to put on the tires. The legislation doesn't even have the money designated for road. It says it may be used for road maintenance .

This fee will encourage people to leave their snow tires on all year. It would be worth risking a ticket.

Please pull this proposal. Families safety should not be taxed especially at a time winter road maintenance is being reduced.

Susan

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**From:** fred@mtaonline.net [mailto:fred@mtaonline.net]  
**Sent:** Sunday, February 12, 2017 9:12 PM  
**To:** Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
**Subject:** Studded tire fee increase

I would like for you to reconsider SB 50. We tend to blame studded tires for the ruts in the roads in Alaska. That is not very true. Every road like a building needs to start with a good base! We simply don't have the right aggregate in Alaska to build the proper base needed for our roads. We have round gravel. Like marbles it doesn't stack up very good. What s happening to our roads is the gravel is settling causing the ruts. The ruts don't match tire width of vehicles. I can go on but, I hope you understand what I am trying to say. I have been schooled on this at Vicksburg Miss. Thanks for your time. Fred Thibodeau, Chugiak

Sent from Majl for Windows 10

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**From:** [mike@50below.net](mailto:mike@50below.net) [<mailto:mike@50below.net>]  
**Sent:** Saturday, February 11, 2017 8:45 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded tire proposal

Dear Senator,

I haven't seen the actual bill yet but did see a write up where you were proposing to increase the tax on studded tires from \$5 each to \$75 each making a tax of \$300 on a set of studded tires. This is one of the most outrageous things I've heard come out of Juneau in a while. Especially your rationale for doing so...studded tires cause ruts in the road.

I live in Delta Junction and we have no ruts in our roads and it's not because nobody here uses studs. It's because we don't have the volume of traffic that you people do in south central Alaska. The ruts in the roads there are caused by the sheer weight of trucks, especially during times when the ground is soft, and the sheer number of vehicles that travel your streets. Perhaps you should consult AKDOT and ask them what really causes ruts in the roads.

We drive to Fairbanks for most of our shopping here and the roads are almost always glare ice. Why? Because the road maintenance here is terrible. The Birch Lake station has been closed and the snow plows in Delta do nothing but groom the streets in and around town. The local theory is that the budgets have been cut and DOT wants us to suffer so we will complain and you will give them more money. Everything's political, huh. Meanwhile who suffers. The citizens. And with your proposal who will suffer...the citizens. The roads here in winter are downright dangerous at times in winter. Not everyone has a 4x4 SUV with anti-lock brakes and traction control. For glare ice there is no substitute for studded tires. You should do your homework on that one. My studded Hakkepelitas already cost \$750 per set, now you want me to pay over \$1,000 for them? And for what? Is there going to be more road repairs with the extra money? I doubt that seriously.

You Legislative types have been spending beyond your means for years now. Why don't you cut the budget and try to get some oil companies to invest in our state. Don't punish the people of our State, solve the problem. Isn't that why you're there.

Mike White  
P.O. Box 1718  
Delta Junction, AK 99737

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**From:** Matthew Pauli [<mailto:kickwax64@gmail.com>]  
**Sent:** Saturday, February 11, 2017 5:22 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Senate Bill 50

Senator Giessel:

I am a constituent. Our house is on Circle Drive. We are in a LRSA so our roads are plowed early and sanded often. I realize that this situation is different then when I access Hillside Drive and O'Malley Road to the New Seward Highway.

I have long been an advocate for studless snow tires. They are still on my truck. However, my attitude has changed on the subject due to the poor winter maintenance which in turn leads to ice build-up and accumulation which is equally as dangerous as the ruts created by studded tire use. Similar to January 26 of this year, the forecast for the Anchorage area next week includes rain. This sets up a situation that state DOT will not respond on a timely basis. The roads will be

I would imagine a review of road design and construction should also be in the discussion. Five year vs. 20 year road design?

I realize the fiscal situation the state of Alaska is in. \$75/tire is not an answer; it is just window dressing on the larger fiscal problem.

For the record, my wife and I have lived in Anchorage virtually all of our lives (now in our 6th decade). We also realize the Alaska(n) aversion to pay for the services they utilize. We regularly commit a good deal of our income to activities that at one time received direct public funding. We are not averse to paying for the services we utilize; both public and private. We are not averse to the use of our PFD for state services, a state income tax, increased user fees, sales taxes. We both grew up where we benefited from liberal college lending programs (forgiveness), Projects '80's, grain elevators that were never used...

Thank you for your time,  
Matt Pauli  
11945 Circle Drive  
Anchorage

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**From:** Trevor Thompson [[mailto:gub\\_wv@hotmail.com](mailto:gub_wv@hotmail.com)]  
**Sent:** Tuesday, February 14, 2017 6:29 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** No Taxes

Senator Cathy Giessel:

I am writing to you concerning a disturbing article I saw in the ADN. A proposal to increase the per studded tire tax from \$5 to \$75 dollars is, there is only one way to put it, insane. We cannot tax our way out of our current fiscal crisis and balancing the budget on the backs of your constituency is definitely not the way to do it. Studded tires can serve as a life saving devices for our vehicles and your proposal will price many people out of that option. If we want our road maintenance to be less, we should work with our contractors and choose road surface material that lasts longer and performs better. Also, maybe our road contracts should have a performance guarantee stating that the surface shouldn't need to be redone every 3-5 five years as seems to be the case.

I implore you to work with your fellow senators to cut any and all waste from government before a single thought is turned to raising taxes on anyone in this state. I have lived in Alaska my entire life and

it sickens me to have watched our state government grow unchecked into the behemoth it is today. Please embrace libertarian and conservative views of government that it be no bigger than necessary. Thank you for your time in this manner.

Respectfully,  
Trevor Thompson  
3601 Twilight Ln  
Anchorage, AK 99516  
907-350-0349

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From: John See [<mailto:iseeforester@gmail.com>]  
Sent: Monday, February 13, 2017 6:35 PM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Studded Tire Tax

Senator Giessel: I am somewhat appalled by your proposal to raise taxes on something that I consider a "life & safety" issue. I would like you to consider that public safety agencies in Alaska all utilize studded tires for "first responder" vehicles. There are good reasons for this decision. Please do some research and complete an in-depth analysis of the different alternatives before pushing this faulty bill through the system.

I personally have tried the studless winter tires (several brands) with an open mind and have found all of them to be significantly inferior to the studded variety. This issue seems to be heavily weighted by the tire industry. Why is that? What is the profit difference? How about talking to the experts on winter driving; APD, AFD, AST and other emergency response agencies who demand that their employees use studded winter tires for good reasons.

Please carefully consider this faulty proposal before putting our loved ones at additional risk because of the dramatic cost increase mandated by this legislation. This proposed tax will restrict the use of studded tires to the wealthy. Is that fair? I think not!

John W. See

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From: Colleen Darrell [<mailto:aurorasky@pci.net>]  
Sent: Monday, February 13, 2017 6:58 PM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Have you lost your friggin mind?

Senator Giessel...

I can only attribute your arrogance to being some spoon-fed bureaucrat who hasn't had it too rough! What a loser you are to even suggest that a \$75/per tire tax be placed on winter tires... how friggin stupid that was of you! Are you some scientific expert on winter tires?

CUT YOUR LOUSY AND LAZY STATE EMPLOYEES... CUT 1/3 AND LEAVE THE REST OF US ALONE. Then move to all the hand-out programs... Then tell the natives to pay

their fair share since most of them are the recipients of all those free-bee programs... then you can inform the holy than thou oil companies that their oil taxes are being down-sized. They laid off thousands of people... WHY THE HELL CAN'T THE STATE FOLLOW SUIT? TOO GOOD FOR THAT? I HAVEN'T WORKED SINCE LAST JULY 2016 SINCE YOU IDIOTS HAVE NOT BOTHERED TO PRODUCE ANY ACTUAL JOBS...

TIRED OF THE LEGISLATURE'S INCOMPETENCY... WAS IT NOT BAD ENOUGH WHEN YOU IDIOTS LEGALIZED POT AND DOWNSIZED THE TROOPERS?

YOU NEED TO BE REPLACED

C Darrell

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From: Mark Inghram [<mailto:minghram@gmail.com>]  
Sent: Monday, February 13, 2017 7:43 PM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: STUD TAX

SENATOR GIESEL:

I am very disappointed in your proposed increase on taxes applicable to studded tires. Safety should be your primary concern. The statement that I saw you made said that the studdless tires are "almost as good" as the studded tires. I doubt you are qualified to make that conclusion, and from what I have read there is not agreement on the effectiveness of studdless tires. It is also likely that some of the rutting common throughout Alaska is not the result of stud use, but rather the result of soft asphalt, poor subgrades, and the "spongy soil" that is common throughout much of Alaska during breakup. In essence, you are proposing that we put people at more risk in order to save a money. I find that incomprehensible.

I would speculate that the cost of road repair from the use of studded tires to the economy as a whole is likely less than the cost to the economy of loss due to preventable accidents with the use of studded tires. What is the cost to the economy of the medical bills incurred from the accidents prevented by studded tires? What is the cost to the economy of the loss of productivity due to lost time on the job from injury/death from preventable accidents from the use of studded tires? What is the cost to the economy of repair of vehicles damaged needing repair from accidents preventable by use of studded tires? What are the unquantifiable costs to families that have lost loved ones due to accidents preventable with the use of studded tires? Have you really made an attempt to address all of the costs to the economy potentially saved from the use of studded tires? In reality, there is likely no way to quantify these issues. My conclusion, repairing the roads in Alaska resulting from damage due to stud use may be substantial, but so is the cost to the economy from the damage, injury, and deaths resulting from not using studs. Even without the ability to accurately determine the true costs, Alaska needs to consider the cost of repair of the roads as a cost for keeping people safer. That keeping people safer is enough justification without even looking at the real costs.

What your proposed tax on studded tires is an attempt to do is to control Alaskan's choices through onerous taxation. This reeks of how the Federal Government controls the social and economic direction

of the country through the tax code. I am sorry to hear that you have decided to follow that poor example, and take a position from "on high" that you know what is best. Combine this with your support of the absurd Dunleavy proposal and it is clear that you have lost your compass.

Thank you for your time,  
MARK INGRAM

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**From:** Bob Kirn [<mailto:kirn@gcl.net>]  
**Sent:** Monday, February 13, 2017 9:14 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** \$75 Studded Tire Proposal and Other Budget Fixing Ideas

Senator Giessel,

As a constituent who has voted for you twice, I am very disappointed in your proposal to increase studded tire fees to \$75 per tire and feel it necessary to voice my opinion. While you see this as a revenue generating "user fee" for those who might be diminishing the lifespan of our roads (an inconclusive assumption), this is a foolish proposal in many ways. It will disproportionately affect those who struggle economically and cannot afford 4 wheel or all-wheel drive vehicles. As a parent of teenage drivers, I see studded tires as an extra form of insurance to keep my kids and everyone else, including you, safe on the roads. To think that many people will forego extra safety measures because of the excessive cost to buy studded tires is a public safety nightmare. Any reasonable person can predict that accidents and injuries will increase. If you are assuming people will magically become more careful drivers, you are dead wrong. If that were true, we wouldn't have dozens of ditch divers every time it snows. The small amount of revenue generated will be a fraction of the extra costs incurred in auto damage repair costs, insurance premiums and health care costs generated from additional injuries.

While I appreciate that Alaska is facing difficult choices in these challenging financial times, this is the wrong approach to solving the budget crisis. Let's call it what it is – a tax increase for those on the road system.

Sincerely,

ROBERT KIRN

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**From:** [beth@bethsvalleyviews.com](mailto:beth@bethsvalleyviews.com) [<mailto:beth@bethsvalleyviews.com>]  
**Sent:** Tuesday, February 14, 2017 7:25 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Cc:** Sen. Shelley Hughes <[Senator.Shelley.Hughes@akleg.gov](mailto:Senator.Shelley.Hughes@akleg.gov)>; Rep. Cathy Tilton <[Rep.Cathy.Tilton@akleg.gov](mailto:Rep.Cathy.Tilton@akleg.gov)>  
**Subject:** Get Out of Our Pockets and into Government's

Senator Giessel,

Your husband knows, as do all long-term DOT employees, that a study was done in the 90's that proved with higher quality gravel and deeper road beds the roadways would last much longer. Additionally, it is not the studded tires that truly cause the damage, it is the weight on the too-shallow, low-quality gravel, rubber-asphalt design-built of our roadways. Get a grip and go after the true cause and don't come to us to pay for it.

Right now we have \$13+ billion in reserves. With a \$2+ billion shortfall this year, which potentially on-going, and reserves that statutorily increase every year. We could probably hold on for at least 10 years in this manner. By the end of 5 or 6 years the International Energy Association anticipates oil being around \$80/barrel, which would allow our earnings to regrow as we would not need to deep into them to maintain the current budget

Both chambers of the legislature now we have about \$1,200 in income taxes, 10% in capital gains taxes, increased motor fuel taxes, \$75/tire on swap-out (not just purchase) for studded tires, increased fishing fees, increased snow machine fees, etc., etc., etc. The ones I have numbers for lead me to believe that each individual (who pays taxes) would be paying the government about \$3,000 per year. It is my understanding that only about 60% of us pay income taxes. So, about 292,000 (less children and 60% adults) will pay about \$876 million to government. Another tiny drop in our over-bloated budget.

Get back to work and reduce the budget by \$1.1 billion and THEN maybe we'll be able to let you have more money to waste. After all, you don't seem to realize that we are in a recession and according to responsible and respected economists, as well as ISER last spring, say the absolutely worst thing you can do in a recession is take money out of the private sector.

Beth Fread

Associate Broker

907-354-7759

[Beth@BethsValleyViews.com](mailto:Beth@BethsValleyViews.com)

Lee Realty, LLC

550 E Dunbar Dr., Suite F

Wasilla, AK 99654

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From: jlbuskirk [mailto:[jlbuskirk@mtaonline.net](mailto:jlbuskirk@mtaonline.net)]

Sent: Tuesday, February 14, 2017 8:53 AM

**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Cc:** jlbuskirk <[jlbuskirk@mtaonline.net](mailto:jlbuskirk@mtaonline.net)>  
**Subject:** SB 50

I am writing to you to express my displeasure at SB 50. Not everyone lives in Anchorage. We have lived in Talkeetna since the mid-seventies and we have always used studded snow tires. I do not feel like it is your place to heavily tax people who live in a very snowy / icy area. Also, this will result in many more accidents and the end result will be a far greater cost of lives. For anyone who has ever driven icy roads and had to brake suddenly (for example for a moose), there's no doubt that studded tires work. This bill is just a dumb idea. Sincerely, Jane and Larry Buskirk

Sent via the Samsung GALAXY S@4, an AT&T 4G LTE smartphone

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**From:** Wiley\_Lisa [[mailto:Wiley\\_Lisa@asdk12.org](mailto:Wiley_Lisa@asdk12.org)]  
**Sent:** Tuesday, February 14, 2017 9:19 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** no stud tax

To Senator Giessel,

While I appreciate your efforts to create sources of new funding, I urge you not to pass your Stud Tax bill. This would hit everyday Alaskans who are trying to be safe in the pocketbook. That is the last population you should be targeting.

I encourage you, instead, to find create ways to tax the oil industry.

Please do not respond with your logic about why you created this bill. I have read that information. Just please note that this is not a popular decision for every day Alaskans.

Sincerely,

Lisa Wiley

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**From:** skconn@mtaonline.net [<mailto:skconn@mtaonline.net>]  
**Sent:** Tuesday, February 14, 2017 9:30 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Cc:** Shelley Hughes <[hughesalaska@inbox.com](mailto:hughesalaska@inbox.com)>  
**Subject:** SB50

Dear Senator Giessel,

I am very upset that you have sponsored a huge tax on Alaskans. \$75 a tire is a huge blow to people's budgets, especially when the Governor and your House colleagues are looking to continue to cut the Permanent Fund Dividend, triple the gas tax, and institute an income tax. All of these will place more and more burdens on working Alaskans and push us into a full blow recession.

The true reason that our roads have ruts and are falling apart is that those who get the contracts use cheap materials that do not last. We keep throwing money away on bandaids, instead of fixing the real problem. Maybe the state should look at other bidders who will do the job right, and then make sure that they do. That would definitely serve the state, but instead the contracts are awarded to the same companies year after year; who must laugh all the way to the bank.

You know that all money brought in must go to the General Fund first, before it can be distributed out. Once those funds get absorbed into the General Fund they rarely, if ever, go to the programs that they were supposedly collected for. We have seen examples of this with the tobacco and alcohol taxes.

You were sent to Juneau to fix the budget, not put new taxes on the residents of our state. People are furious over this bill back home; I should know since I am the District 11 Chair and Secretary of Valley Republican Women. You can make things right by withdrawing this bill and fight the proposed taxes and restructuring of the Permanent Fund coming our way. If you don't, then you are siding with the Democrats and are telling us that you support bloated governments and wasteful spending. That is not in keeping with the Republican Platform.

Sincerely,  
Shannon Connelly  
District 11  
907-354-1856

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**From:** Les Notestine [<mailto:alaska.notes@gmail.com>]  
**Sent:** Tuesday, February 14, 2017 10:06 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** SB 50 - Studded Tire Tax

I would urge you not to vote for your bill. My husband and I are retired. We can't afford all of the proposed taxes. A tire tax is not what is needed to fix the roads. Alaska didn't have this problem in the 1980's. The reason the roads have ruts is because the ASPHALT PLANT changed the formula for asphalt that is placed on Alaskan roads. They changed the size aggregate from a small aggregate to a U. S. quarter sized aggregate. Maybe they should go back to the smaller aggregate and the roads wouldn't need to be replaced or repaired as often.

Last year, portions of the Seward Highway were overlaid between O'Malley Rd. and Tudor Rd. The project was barely completed and the new pavement was already stripping and rutting. I have never seen such bad work or possibly another new pavement formula. Maybe you should investigate if the formula changed in any way.

I do not know exactly where you live, but I have had experience with the non-studded tires. I worked for the Municipality of Anchorage and was a project inspector. The city made a new policy for no studded tires. I had to follow a route on the hillside roads for the Goldenview School sewer line. I was driving a suburban-type vehicle. While driving the hillside road to the project site during the spring melt, the vehicle would not climb the icy road. I was about half way when the car decided to slide down backwards. Miraculously, no vehicles were traveling at the intersection below, where the "T" dropped off about 12 feet. I managed to turn the car just enough to end up at the bottom of someone's driveway instead of dropping of the embankment. The vehicle was filled with surveying equipment including the oversized nails used for survey marking. If I had overturned or hit the garage door, all of those markers would probably be impaled into my body. After that, the city allowed vehicles that had to drive on the hillside to have studded tires, alleviating the slipping problem.

The new snow tires are great on snow, but not on ice. We live in ALASKA! We need to drive on ice during the spring melt especially. An annual fee of \$300 to me that is to fix roads that could be fixed with the State asphalt plant formula isn't right. I urge you to further investigate the 1980 formula change. At that time, there was a gravel shortage, and I assume that might still be the case, but the roads can be constructed better.

Look for ways to cut spending vs. more tax. Since our population is shrinking, maybe we don't need as many legislators or aids. There should be NO pay raises. Consider better benefits and bonuses vs. any pay increase. Benefits do not add to future retirement plan dollars. What is costing government so much is the technology hardware, software, training and turnover. Soon to be replaced by robots that will no longer innovate. You can't stop progress, but maybe something can be added to purchase agreements for computers to last more than 2 years before they are obsolete or that will be replaced at no cost to the government. One magnetic pulse will show just how useless all the technology can be.

Government's original purpose was to keep records. You might find out how worthless government is when there is no longer a hard copy of documents. You can't tax or assess property if you don't know who owns it. How will you access records if it is just a blip on a computer screen and the power goes down for a long period with no way to access backup electronic records?

...just things to think about. Don't tax snow tires.

Thanks you for reading,  
Sandy Notestine

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**From:** Harold Johnsen [<mailto:johnsenharold@gmail.com>]  
**Sent:** Tuesday, February 14, 2017 10:32 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Proposed new tax on studded tires

In visiting with several engineers, I urge you to get more information about what is causing the Glenn Highway, and others, to develop "grooves." Studded tires may "shred" blacktop at stop signs when the drivers spin their wheels on ice, etc. but there is no way that would account for the grooves in the Glenn. I have been told that the grooves result from compression of the blacktop, particularly on long hot sunshine filled days. Some compression from cars and more from trucks, particularly heavy trucks headed for the North slope. The compression is minimized if the aggregate used in the blacktop mix is of different sizes rather than all uniform. Uniform aggregate tends to stack and does not maintain the distance between each piece of aggregate needed to avoid compression. I am not an engineer, but we have a whole department of transportation full of them. Please contact them or others before pursuing a tax that won't result in the ultimate goal you are trying to achieve - better roads. Thanks for your service, we are facing the need for a lot more revenue but this source may be ill-advised. HaJ

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**From:** Ted Jones [<mailto:tootall01@hotmail.com>]  
**Sent:** Tuesday, February 14, 2017 11:32 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded tire tax

I have used studded tires for many years and unless they are outlawed I will continue to use them. I feel as you do, the safety of my family and grandkids. I travel more than the 13 miles between eagle river and anchorage. The 12% of the vehicles running studs should not bear the cost to fix roads. How many of these vehicles keep their studs on thru the summer. This should be enforced and fined as the law states. I don't think an increase \$70 a tire is affordable to the average Alaskan. So they will be using unsafe tires and causing accidents or unsafe conditions for other drivers. Any section of road has to be resurfaced over a period of time. Maybe a different method and quality of asphalt would make the road last longer. Don't penalize the few that make a choice to use studded tires for the safety of their family.

Thank you,  
Ted Jones  
Sent from my iPhone

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**From:** Renne Champagne [<mailto:renne@gci.net>]  
**Sent:** Tuesday, February 14, 2017 12:25 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded tire tax

Your studded tire tax increase is ridiculous and unfair. I understand Alaska needs more money but I don't see any of you in office or government jobs taking ANY income cuts and you already got the PFD. I'm seriously considering moving to lower 48 and so is my family (which is over 15 persons).

Renne Champagne  
Home: 907 357-0103  
CeLL: 907 357-0102  
Fax: 907 631-4253

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**From:** BOB LOPETRONE [<mailto:boblopetrone@gci.net>]  
**Sent:** Tuesday, February 14, 2017 12:54 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>; Sen. Kevin Meyer <[Sen.Kevin.Meyer@akleg.gov](mailto:Sen.Kevin.Meyer@akleg.gov)>  
**Subject:** Studded tires/ State workers

Senators: After hearing the proposal of \$75 per studded tire I must voice my opinion against the issue. I have done research into the stud less tires that Senator Geisel mentioned and in fact own some of those same tires. They do in fact work very well on small light weight vehicles, but here is where the problem is, they do not work nearly as well on light truck applications because of the load rating, to obtain the required load rating the manufacture must stiffen the side wall making them much less flexible and in doing so they do not work nearly as well as on the smaller vehicles. Also we know that Alaska is truck country. I have owned and operated a snow removal business for 27 years now from upper hillside and all over the Anchorage bowl, I cannot imagine going the places we do in the conditions that we do without studded tires and sometimes we still need chains to get through. Please reconsider this proposal!

The next problem I would like to address is I know several men who work for the state along the state hi ways. It was made known to me that it came down from above to the workers to do 30% less We will show them to cut our budget! It is a well known fact that most of these crews run at around 50% of what the private sector does so where does this leave us? Hmmm

Respectfully Bob Lopetrone

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**From:** copping\_janet [[mailto:copping\\_janet@asdk12.org](mailto:copping_janet@asdk12.org)]  
**Sent:** Tuesday, February 14, 2017 1:30 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Tax on studded tires

You are creating an enormous tax on something that keeps Alaskans safe on icy, winter roads. The grooves in the roads are from thousands of cars and trucks driving in the same path, not solely from studded tires. And how will you tax second-hand studded tires? Will you collect tax every winter or just once?

Are you a democrat? They love taxing people and creating more boondoggle for the public to wade through. Sounds like you.

Please retract your unfair tax and come up with something we can all use... like less spending by our Legislature. Work within your budget, no more taxes!

Janet Copping  
[copping@alaskan.com](mailto:copping@alaskan.com)

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**From:** [gvhunt@gci.net](mailto:gvhunt@gci.net) [<mailto:gvhunt@gci.net>]  
**Sent:** Tuesday, February 14, 2017 4:19 PM

To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Studded Tires account for 1/3 of rut creation

Allegedly, only 1/3 of road ruts can be blamed on studded tires according to a study I recall being in one of the Anchorage newspapers about 20-years ago. If I remember correctly, the majority of the study was done on O'Malley Road. Ruts were observed for different axel widths – everything from Subaru to gravel hauling truck/pup combinations. The conclusion (if I remember correctly) was that ruts were based on three things: heavy vehicles such as the gravel hauling truck/pup combinations, soft asphalt mixture using small gravel/sand composition, and studded tires .

Consequently, I don't feel it fair to put the full blame on studded tires.

Sincerely,

Gaye Hunt – Residence: 12500 Ridgewood Road – mail: POB 111897 – Anchorage, AK 99511-1897 345-5527

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From: Cynthia Helmericks [<mailto:akh2ogeek@gmail.com>]  
Sent: Tuesday, February 14, 2017 3:08 PM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Studded Tire Tax

Hello Senator Giessel,

I wanted to write to you as someone who lives in your district. I live in Indian and commute on a near daily basis on the Seward Highway. Because I live on such a treacherous road, I find it somewhat comforting to know that people take their safety and mine seriously by making sure that their vehicles are in proper working order, but also try to do all that they can to be safe on the road during the winter months. This includes the use of studded tires. With your introduction of SB 50 I am concerned about what might happen with it's passage. First, not all families make enough income to afford expensive winter alternative tires such as blizzaks. Second, you would be effectively pricing the tires out of the range of many families. This would in turn effect everyone's safety on winter roads, including your own. Based on your interview with Alaska Dispatch I really don't think that you have thought about the possible consequences of creating such a steep tax. Secondly, I believe that you haven't really looked into how much damage a studded tire on a passenger car does compared to semi-trucks with regular tires (which aren't taxed for the damage they do). If you did, then you would know that semi-trucks create 400 times the damage to roads that an average passenger car does.

I understand that the state is in a financial crisis and that new avenues have to be created for income to work on roads and other infrastructure projects. However, compromising safety because you haven't considered all the facts is not the way to go about it.

I hope that you take another look at how the roads are being damaged in our state and how to effectively fix the roads without compromising safety.

Thanks for your time, Cynthia Helmericks

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**From:** Debbie D. [<mailto:flythesky@gci.net>]  
**Sent:** Tuesday, February 14, 2017 7 52 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded Tire Tax

Hello,

I would like to express my dismay at the bill that would raise the tax on studded tires to \$75 each. That is an astronomical jump. I am hoping it does not pass. I would like to suggest an alternative: Raise the tax to \$20 per tire and change the dates for running the tires to 2 weeks later in fall for putting them on and two weeks earlier in the spring for having to take them off. The roads have more of a chance of being bare of snow and ice during those weeks. Also, it takes a month off of the studded tire season and therefore protects roads more. Thank you for your consideration of this alternative.

Debbie Dorsey

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**From:** Mitchell Glover [<mailto:maglover@alaska.net>]  
**Sent:** Tuesday, February 14, 2017 8:25 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** tires

Dear Senator Giessel,

I agree with your attempt to decrease wear and tear on our highways caused by studded tires.

However, to increase the fee for usage is to punish those who adhere to the laws of when the tires are allowed. It may be more helpful to monitor and enforce the law of removing studded tires in the spring.

I have noticed many vehicles with studded tires during the summer when the tires should have been changed. The fines collected by citing those drivers who don't follow the timeframe can help supplement the cost of repairs on the roads.

Traffic stops may not reach many offenders. Observing vehicle tires at large venues and events may reach a larger number. At any rate, I think enforcing the law already in place is a good place to start.

Mitch Glover

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**David Scott**

**From:** David Scott  
**Sent:** Wednesday, February 15, 2017 2:22 PM  
**To:** David Scott  
**Subject:** FW: SB50

**From:** Craig Wortham [mailto:cwortham@alyska.com]  
**Sent:** Tuesday, February 14, 2017 3:17 PM  
**To:** Sen. Bert Stedman <stedman@alaska.gov>  
**Subject:** SB50

Senator Stedman,

My name is Steven C. Wortham, I am the Chief Operating Officer for Alyeska Tire. We have 7 Retail tire locations in Alaska, located in Anchorage, Fairbanks, Palmer, Kenai, Soldotna, and Homer. We have a Truck Tire Center in Soldotna and a Distribution/Wholesale operation in Anchorage.

I am writing you because I recently came across Senate Bill 50, proposed by Senator Giessel of Anchorage. This tax would be a \$75.00 tax on studded tires that have studs that weight more than 1.1 grams (heavy studs). I would like to voice my concern on this bill.

The \$300 cost per vehicle for the \$75 per studded tire tax will be mostly ignored by those wanting their preferred studded tire. Online retailers have yet to collect and pay to the State of Alaska any revenue from the sales of the most popular studded tire. An Alaskan family with four vehicles will not stand for a \$1,200.00 tax on their safety. Out of state merchants will be selling to Alaskans and putting Alaskan tire businesses in a very unfair and negative position in the marketplace.

Alaskan consumers demand choices when it comes to their purchases and this bill will inherently limit State owned businesses ability to be competitive in the free market, giving Alaskans the choices they demand.

Sincerely,

The logo for Alyeska Tire, featuring the words "ALYESKA TIRE" in a stylized, outlined font with a drop shadow effect.

**Steven C. Wortham**

**General Manager**

(Phone)-907.252.3659

(Fax)-907.260.9308

**To: Chair Alaska Senate Transportation Committee**

**From: Lynn Willis, Eagle River, Alaska**

**RE: Testimony regarding SB50**

**Date: February 20, 2017**

**I oppose SB50. This "taxation" is not intended to raise revenue for a public good but to modify behavior. Have the courage to ban studs or leave well enough alone. This gesture is akin to using law enforcement primarily to generate revenue instead of affording public protection. This abuse of authority breeds contempt for that authority. I would suggest that at this point in time the Alaska Legislature should be sensitive to that appearance.**

**The sponsor has opined that studs, and studs alone, are the cause of these ruts. The sponsor also claims that repairs for studs alone cost \$1 million per mile then neglects to say how often these repairs are necessary. When checking BASIS on 20Feb17, I see no technical documents included in the testimony to substantiate that opinion. I would observe that the rutting on a three lane roadway seems to be most prevalent in the center lane where the road must be compacted above grade to form the "crown" of the road which allows drainage to either side. Could the weight of trucks also be contributing to this problem? Also, an equally serious hazard is the "delaminating" of the road surface on the Glenn Highway where large slabs of pavement slough off. Is that being caused by studs?**

**I support a "Do Not Pass" committee recommendation for SB50.**

**LW**

**David Scott**

**From:** David Scott  
**Sent:** Wednesday, February 15, 2017 2:14 PM  
**To:** David Scott  
**Subject:** FW: SB 50: Tax on Studded Tires:

**From:** David Bear [mailto:micheal\_d.9@alaska.net]  
**Sent:** Saturday, February 11, 2017 2:41 PM  
**To:** Sen. Bert Stedman <Sen.Bert.Stedman@akleg.gov>  
**Subject:** SB 50: Tax on Studded Tires:

**Senator Stedman,**

**RE: SB 50 as sponsored by Sen. Giessel.  
HB 106 Repeals AS 43.98.025 Effective July 1, 2008:**

I believe Senator Giessel's proposal to assess a tax of \$75.00 per tire is disingenuous, at best. Her proposal as submitted is entirely lacking in substantive evidence re: her claim that the DOT "says" it cost something like \$1million per mile to repair damage caused by studded tires on Alaska's paved highways. That simply is not true. I submit to you that the \$1 million per mile cost to DOT is more accurately the cost to construct a primary highway from the ground up.

This issue was before the 25th Legislature in 2007-2008. The result was a thorough vetting of HB 106 which repealed AS 43.98.025 Tire Fees effective July 1, 2008. I invite your attention to AS 43.98.025 which offers very well thought out and definitive specifications for the physical size, material composition and terms and conditions of sale of studded tires. Senator Giessel's propose SB 50 offers only extremely broad and sweeping terms for the taxation of \$75.00 per tire. Her proposal does not address any aspect of the purchase, use of or substantive evidence that studded tires actually cause the damage to Alaska highways that she claims in SB 50.

I further submit to you that \$75.00 per tire for studded tires is taxation without representation and as such is a legislative over-reach if passed into law. Such a law places undue and, in my opinion, generally unfair financial burden on a large number of Alaskans.

I sincerely appreciate your assistance in defeating SB 50. I think it is an unprincipled and frivolous proposition.

Thanks very much,

dbear

P.O. Box 39283  
Ninilchik, AK 99639

Ph.: 907-567-3344

## **David Scott**

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**From:** John See <jseeforester@gmail.com>  
**Sent:** Monday, February 13, 2017 6:21 PM  
**To:** Sen. Bert Stedman  
**Subject:** Studded Tire Tax

**Senator Stedman:** I am somewhat appalled by Senator Giessel's proposal to raise taxes on something that I consider a "life & safety" issue. I would like you to consider that public safety agencies in Alaska all utilize studded tires for "first responder" vehicles. There are good reasons for this decision. Please do some research and complete an in-depth analysis of the different alternatives before pushing this faulty bill through the system.

I personally have tried the studless winter tires (several brands) with an open mind and have found all of them to be significantly inferior to the studded variety. This issue seems to be heavily weighted by the tire industry. Why is that? What is the profit difference? How about talking to the experts on winter driving; APD, AFD, AST and other emergency response agencies who demand that their employees use studded winter tires for good reasons.

Please carefully consider this faulty proposal before putting our loved ones at additional risk because of the dramatic cost increase mandated by this legislation. This proposed tax will restrict the use of studded tires to the wealthy. Is that fair? I think not!

**John W. See**

**From:** KENNETH SCHULZ [mailto:ken0556674@me.com]  
**Sent:** Monday, February 13, 2017 8:04 AM  
**To:** Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
**Cc:** Sen. Kevin Meyer <Sen.Kevin.Meyer@akleg.gov>; Rep Chris Birch <Rep.Chris.Birch@akleg.gov>;  
Rep. Jennifer Johnston <Rep.Jennifer.Johnston@akleg.gov>  
**Subject:** Studded Tire Tax

Dear Senator Giessel,

While I certainly understand the impact of studded tires on our roads, the fact is they save lives. You will have blood on your hands if you increase the tax at such a steep rate. The increase in cost will increase fatalities in our state. Unfortunately, the people this will affect the most are those who can marginally afford the tires now. For example, young adults just beginning their careers, school teachers, and retirees, to name a few.

I personally experienced this in my life. Patrick Mullen died in a crash on Thompson Pass in 2012. He and his young bride moved to Alaska after he completed a PhD in Anthropology and got his dream job, an Anthropologist for the National Park Service. They could only afford studded tires on one of their cars. Patrick took a beautiful spring afternoon off work to do some backcountry skiing and died while driving his pickup on the pass. That decision to save money and only put studded tires on his wife's car cost him his life. There will be many people making that same decision if you raise the tax on studded tires.

Please keep your tax increase within reason. Don't you have kids or know someone who does?

Sincerely,

Kenneth Schulz  
4721 E 104th Ave  
Anchorage, AK 99507

**David Scott**

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**From:** Randy Ruaro  
**Sent:** Monday, February 13, 2017 10:53 AM  
**To:** David Scott  
**Subject:** FW: Studded Tires / Public Comment

FYI

-----Original Message-----

**From:** Bobbie Cook [mailto:cook\_bobbie@hotmail.com]  
**Sent:** Monday, February 13, 2017 9:59 AM  
**To:** Sen. Bert Stedman <Sen.Bert.Stedman@akleg.gov>  
**Subject:** Studded Tires

I am outraged by Cathy Glessel's proposal to increase the tax on a single studded tire from five dollars to seventy five dollars. This seems like a money gouging plan to fatten the state budget at the expense of safety. Our icy road conditions can persist up to 6 months a year. With global warming comes the unpredictable weather patterns we have been experiencing in recent years. The snow covered roads of the past are being replaced with far more ice covered roads today. While icy road conditions are becoming more prevalent, the road maintenance cuts have left us with less snow removal, less sanding, and far less safe roads.

I have listened to people who refuse to buy studded tires for the last thirty years. They claim that the tire ruts in the roads are caused by studded tires. However if one examines these ruts more closely, they will find that these ruts are not produced from surface wear. If that were true all of the ruts would show subsurface structure showing through the ripping up of the top surface. Instead these ruts are caused by compression from the weight of traffic on a road bed without significant substructure. Alaska's road surfaces are built over areas of tundra and marshes most often lacking in bedrock construction in other states.

This type of tax proposal is hazardous to the safety of Alaskan Drivers. It should not be considered without significant studies, road maintenance, and construction. Another study to consider would be how many people with studs vs. without studs incur traffic accidents each winter. Consultation with insurance companies would also be significant.

**Timothy J. Lamb - Horrible idea to charge \$75/tire tax: It will lead to loss of life. Many people will forego them who cannot drive well on ice.**

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**From:** Timothy J. Lamb  
**To:** cathy.giessel@akleg.com  
**Date:** 2/14/2017 12:37 PM  
**Subject:** Horrible idea to charge \$75 tire tax: It will lead to loss of life. Many people will forego them who cannot drive well on ice.  
**Cc:** Timothy J. Lamb

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I am an over 50 year resident of Anchorage. I am an attorney.  
I primarily defend physicians, hospitals and sports outfitters (heli-ski operators etc.)  
In the winter I drive to Girdwood on the weekends, and sometimes to Hatcher Pass etc. when I don't drive South.

With Southcentral Alaska's high population turnover, we have an influx every year of people without experience driving on snow/ice. I have tried numerous winter non studded tires, and they do not hold as well on corners, and definitely do not grip as well when stopping.

Many people without a lot of disposable income will not purchase studded tires, if your proposal is accepted and passed.

There was a time when I was in my teens, on my own without much money, and I could not afford studded tires.

I wished I had them. Of course, now I can afford them, and put them on all our cars in the fall.

The auto collision repair shops, auto dealerships, hospitals, physicians, chiropractors, etc. will benefit if the proposed statute is enacted because there will be many more accidents and serious injuries, particularly now that it seems the snow, rain, freeze cycles occur more frequently than they did when I was growing up.

I have been involved in death lawsuits where people slid, crossed the center line and died after a head on crash.

I suspect it was a combination of their poor driving, no studded tires, and who knows what else.

If it saves even a few lives to continue to urge new drivers and people not use to winter driving to use studded tires (a high tax will obviously have the opposite effect) then we should do what we can to get them to use the tires.

While there are good winter snow tires, I know from personal experience, they do not work as well on ice.

I urge you to not continue with sponsoring the bill.

I do not have any financial interest in the issue. If anything, my law firm earns more income when there are crashes and lawsuits are filed, so this opinion is against my overall monetary benefit.

Thank you.

Tim 907-279-3581 (work)



I marked this  
because I received  
a "bounce back"

From: Jean Musser [<mailto:musserjm@gmail.com>]  
Sent: Wednesday, February 15, 2017 2:28 PM  
To: Sen Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Studded tires

Dear Senator Giessel,

While I do appreciate that you want to make our roads safer, I disagree with you wanting to raise the fee for studded snow tires. Have you driven on a regular basis in Anchorage lately? It is lawless. People do not abide with the speed limits and rules of the road because they know there are no police to enforce the law. This is causing accidents especially with snowy and icy conditions. Many times it is causing those that are abiding the law to be in crashes due those breaking the law. By increasing the fee for studded snow tires, you are again burdening the citizens who care about safety, and are most likely abiding to the laws, paying taxes, and voting. Why not have a fee for every driver in the road regions they drive? Why not have a toll fee for those entering Alaska? Why must you burden the families that want to drive safely? There is a better solution to this problem. While I'm talking about this issue, I would also like to know why Anchorage hasn't saved it's snow plowing tax dollars for a "snowy day" since it really hasn't snowed for the past 3 years. I know this is a question for the muni, but I think it is also a question for you. Those snowless winters had less road maintenance and more wear & tear on roads from studs. Couldn't some of those funds be used? What happened to that money? And what happened to all the tax money we've paid for police and have gone without any enforcement on our roads? Our dear mayor doesn't seem to think we need either. So goes the integrity of our community. I have voted for your every election and appreciate all you have given in time and effort. I hope you can come up with a better solution than to burden the citizens who are trying to make our community one of wellness, safety, support, and a great place to live. Sincerely,  
Jean Musser

Sent from my iPhone

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From: Jen Hardy [<mailto:ohardy@gmail.com>]  
Sent: Wednesday, February 15, 2017 1:30 PM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: Senate Bill 50

Hello,

I am writing in regards to the studded tire tax. While I agree the Glenn Hwy is heavily rutted and can be dangerous (my husband commutes from Anchorage to Chugiak everyday) I feel like the jump from \$5 to \$75 is to high. Maybe start at \$25 per tire? I think it's a great idea but it would also be such a financial burden and it seems people would just skip the tires and that seems to just make matters worse.

Thanks,  
Jen Hardy

Sent from my iPhone

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**From:** [inmans@alaska.net](mailto:inmans@alaska.net) [<mailto:inmans@alaska.net>]  
**Sent:** Wednesday, February 15, 2017 11:06 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** SB50

Good Morning:

I am opposed to your bill regarding studded tires. I was born and raised in Alaska (Kenai Peninsula) drove 26 miles to work each way. Until my retirement I had studded tires every winter. They were and still are a necessity. During this time in my life, working raising a family I could not have afforded the additional cost of a tax on studded tires, but would have been one of the ones who desperately needed them. Often the working people are on the roads before the snow plows and sand trucks are. The safety of those people is very important. There are several things that damage the roads in Alaska I don't believe that studded tires are the biggest contributor.

I feel the State of Alaska needs to live within its budget. Not try and find ways to screw its citizens and continually grow. Some non essential programs will need to be cut, there are several.

It wouldn't matter if the tax was \$300.00 or \$10,000.00 the people who need them couldn't afford them, and the state would no doubt blow any monies it collected on something non essential anyway.

Sincerely,

David & Carol Inman

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**From:** Shawn Aspelund [<mailto:saspelund@BBNC.NET>]  
**Sent:** Thursday, February 16, 2017 8:23 AM  
**To:** Sen. Kevin Meyer <[Sen.Kevin.Meyer@akleg.gov](mailto:Sen.Kevin.Meyer@akleg.gov)>  
**Subject:** No to Giessel's Tire Tax

Senator,

I agree we need our URBAN road surfaces to last longer. Before we tax the &#\$% out of everyone maybe we can understand what is causing the ruts.

I personally use stud-less tires. But at a cost of 4X the cost of studded. How many people in rural Alaska can afford that? How about the rest of urban. Many do not have extra cash- they will use their summer tires which will lead to loss of life and property.

Please pull Cathy away from the edge!!!

Thanks- tough year I know. Be encouraged. Once the oil is gone (not possible), PF is gone (not likely) with those who are in AK for both, we will restart this state and create a sustainable economy. Whatever you guys do to keep either is just a bonus. You can't go wrong....

Shawn Aspelund,

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**From:** Cindy Butherus [<mailto:Butherus@cvea.org>]  
**Sent:** Thursday, February 16, 2017 3:49 PM  
**To:** Jane Conway <[Jane.Conway@akleg.gov](mailto:Jane.Conway@akleg.gov)>  
**Subject:** Studded Tire

I am incensed over Senator Giessel's proposal of \$200 fee on a set of studded tires. How dare you? Like those of us that use studded tires for maximum safety in Alaska winters are the only ones destroying the roads. Do you understand the freezing and thawing that our roads go through in Alaska? Do you understand when you see the deep ruts in the Glenn Highway that is not caused by studs but by the weight of traffic especially the trucks. So you are proposing to make a small portion of the people on the road pay for all the repairs? You should be ashamed of yourself. That amount of fee will force people not to be able to afford studs. For those of us that live in areas/terrain that need studs in the winter there will be more accidents and injuries and their blood will be on your hands! SHAME ON YOU!! Shame on you to target a small group to pay for damage that EVERYBODY is responsible for.

Cindy Butherus  
P.O. Box 3632  
Valdez, AK 99686  
(907)835-7018  
[butherus@cvea.org](mailto:butherus@cvea.org)

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**From:** Marc and Cathy Bond [<mailto:mcbond007@live.com>]  
**Sent:** Thursday, February 16, 2017 9:46 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Tax on Studded Tires

Dear Senator Giessel: I write to oppose your proposed tax on studded tires.

First, we need to study how many accidents are prevented and lives are saved each year by the added safety of studded tires? Do you know those numbers? Are you prepared to accept responsibility for additional fatalities and non-fatal crashes?

Second, it is my understanding that much of the rutting is due to heavier trucks passing over unstable substrate. Do you have the information and data on the causes of the ruts?

Third, the Alaska Constitution prohibits dedication of tax revenues. Article IX, Section 7 provides: "Section 7. Dedicated Funds The proceeds of any state tax or license shall not be dedicated to any special purpose, except as provided in Section 15 of this article or when required by the federal government for state participation in federal programs." The revenues from this new tax will simply go into the general fund.

I urge you to get all the facts before proceeding with this bill.

Sincerely,  
Marc Bond  
14720 Park Hills Circle  
Anchorage, AK 99516

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**From:** Florence Norwood [<mailto:florenceorwood@gmail.com>]  
**Sent:** Wednesday, February 15, 2017 10:26 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Tire tax

Please do not make it harder to be safe on Alaska roads. People who cannot afford an extra \$200 on top of the price of studded tires will drive on unsafe tires. Those of us who live in Girdwood need studded tires. We already have to pay more for police protection. We count on you to make decisions that benefit the people of our community. Thank you , Florence Norwood

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**From:** Golden Rod [[mailto:goldyn\\_rod@hotmail.com](mailto:goldyn_rod@hotmail.com)]  
**Sent:** Wednesday, February 15, 2017 9:35 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded tires - no tax hike

Senator Giessel,

Road damage is not caused by tires, but by compression from heavy vehicles on a sub par surface.

Studs provide an extra level of safety for driver and others on the road.

Taxes you are proposing are extreme and unaffordable for many folks. Especially when we anticipate layers and layers of taxes and our PFD erased with no promise of reducing the size of a government we do not want nor can afford.

Sincerely,  
Elizabeth  
Sent from my iPhone

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**From:** [ecombs1@gci.net](mailto:ecombs1@gci.net) [<mailto:ecombs1@gci.net>]  
**Sent:** Wednesday, February 15, 2017 10:06 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>

**Cc:** Rep Jennifer Johnston <[Rep.Jennifer.Johnston@akleg.gov](mailto:Rep.Jennifer.Johnston@akleg.gov)>  
**Subject:** Senate Bill 50 Studded Tires

Dear Senator Giessel:

We absolutely oppose the proposed Senate Bill 50 to increase the tax on studded tires up to \$300 for 4 studded tires per vehicle. In our household on Hillside we have 4 SUV/trucks and this would cost us \$1,200 per year taxes just on studded tires!

We understand the State budget deficit. We actually prefer the Legislators reinstate a State Income Tax instead of nickel and diming us to death with new or increased taxes on our goods and consumables. We on Hillside are already over-burdened with property taxes and believe we are being targeted with increased property taxes every year to carry the rest of Anchorage's population who do not pay property taxes for their goods and services. This is not a State Legislative concern it is a local issue but we are painting a picture of what increased taxes on essentials such as vehicle studded tires looks like. We are also Seniors who live on a fixed income and this kind of taxation in SB50 would hit us in the pocketbook as well as others on a fixed income.

Of concern to us is how Senate Bill 50 will affect the tire sales business owners. As a Republican Senator, for whom we voted, you should be supporting our businesses not trying to undercut their sales.

Finally of great concern to us, we believe it is absolutely critical that the State have a Balanced Budget particularly in our crisis deficit situation or even without a crisis situation—we should always have a balanced budget. Lack of it has caused our present situation notwithstanding the oil revenues reduction which should have been factored in years ago through a balanced budget.

Thank you for your time and keep us posted.

Allen and Esther Combs  
11001 Snowline Drive  
Anchorage, AK 99507

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**From:** J.S. Collins [<mailto:ishanecollins@gmail.com>]  
**Sent:** Wednesday, February 15, 2017 9:54 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>; Shane <[ishanecollins@gmail.com](mailto:ishanecollins@gmail.com)>  
**Subject:** The tire issue

Senator Giessel,

I can imagine being a state senator at a time when there are huge budget deficits is difficult and tenuous at best. It is a tough job that you are in for. I am hopeful that you and the Alaska Legislature can solve these difficult problems to ensure the long term sustainability of Alaska for future generations.

Why I am writing as you can imagine from the subject line is your proposed \$75 per tire tax on studded tires. My first question would be where did you come up with the \$75.00? Currently at \$5.00. This price would put the safest tires on the road out of reach for many as it would increase the cost by over \$300.00 for a set of 4 tires.

The other question is I do not follow your logic regarding "ruts in the road". I would argue that the materials being used during road construction and methods are of such poor quality and standard that they are doomed to fail. I have watch a few roads being repaired or constructed in my time. I have to say that what happens here in Alaska is not what I would consider a high standard. Given the conditions here are some of the toughest in the nation. Permafrost. Constant freeze thaw. I would imagine some of the toughest standards would be in place when it comes to these infrastructure needs. With this being said I would argue that studded tires do not cause ruts in the roads any more than a semi truck driving up Rabbit creek does. When an over loaded truck (or any heavy truck) drives on a road not engineered for the surface it will indeed cause ruts.

I have two cars. One with studded tires. One without. There is NO question that the vehicle with studded tires drives much safer and stops quicker than the one without. I have to really think ahead when I am driving the vehicle sans studs. Tire dealers will gladly advertise the benefits of both studded and studies tires. Both work fine but the studded tires are the best option for every driving condition in Alaska. If you pass this legislation I will gladly join you at the bottom of Rabbit Creek or Clark Road and watch the ensuing accidents.

How about "actually" enforcing the current law when people put their studded tires on and off? Isn't this a \$75 fine using studs in the summer season? As a cyclist commuter most of the summer, I hear the familiar sound of studs every single day I commute to work. This would be \$75.00 each occurrence. This could generate some your needed tax revenue and prevent the supposed damage these studded tires cause the roads. If you "chose" to leave your studs on then you pay the price. With a stud tax you don't have a choice.

Why stop with a stud tax? If you want to generate revenue through taxes, just charge \$75.00 for every tire sold here in Alaska. Make it \$150 for vehicle over a 6,500 pounds to include Semi trucks and buses. I could get behind this. Again everyone is vested.

I am hopeful that the Alaskas Legislature will come to a solution to solve the budget crisis. As I read the news I am constantly reminded of several history lessons that I have learned over the years. Remember this. You cannot tax your way out of a crisis. Be it a studded tire tax, state income tax, sales tax....historically these just do NOT work.

Just "tired" in Alaska,

Shane Collins

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**From:** Mike Roberson [mailto:mikeroberson63@gmail.com]  
**Sent:** Sunday, February 12, 2017 6:31 PM  
**To:** Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
**Subject:** Studded Tires

Instead of charging \$75 per tire, how about enforcing the law that already exists, making it an offense by driving studded tires in the summer, except punishable by \$500 per tire. Why are the middle class always targeted when trying to cure a social ill. I say that because most of the cars that drive around in the summer with studded tires, are junk. The damage from the studded tires are a result of driving on a clean road. I'm not an analyst or scientist, but I know what friction does. There is nothing wrong with studded tires in the winter with SNOW and ICE. Penalize those who are responsible for the damage to the roads. I suggested to the Anchorage Mayor's office that parking enforcement be granted the permission to tag violators if they have studded tires unlawfully.

Think about it.

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**From:** Karen Lederhos [<mailto:klederhos@gmail.com>]  
**Sent:** Saturday, February 18, 2017 10:29 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Tires

Please don't tax studded tires! I need on my little car. Tried techie no studs, went back to sure grip of studs. By the way, can we stay on AK Standard Time. Daylight Savings Time is ridiculous and way old fashioned!!!

Sent from my iPhone, Karen Avila-Lederhos

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**From:** Peter Aftreth [<mailto:paftrth@gmail.com>]  
**Sent:** Friday, February 17, 2017 11:22 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** NO on STUDED TIRE FEE

Please KNOW WE HILLSIDE RESIDENTS VOTE NO on ANY STUDED TIRE TAX.....much less and INCREASE of \$70.00 (SEVENTY DOLLARS).....YOU CANNOT BALANCE the STATE BUDJET ON STUDED TIRE TAX>>>>>>

I/WE Have been VOTERS IN ALASKA/ANCHORAGE since 1970.....Living on the HILLSIDE since 1975....My wife BECKY rolled a 4 wheel drive vehicle with ALL SEASON tires on our first snow of the winter....Our CHILDREN were in the CAR going to school....BECKY Chained UP TWICE a DAY going to work as a SCHOOL NURSE after that TRAMA...

At \$300.00 TAX for a set of 4 tires.....HOW MANY MORE STOLEN WHEELS and TIRES will YOUR CRAZY TAX CAUSE? LIVES SAVED are MORE IMPORTANT Than a little more road ware.....

HEAVY COMMERCIAL TRUCK CAUSE EXCESS RUTTING....POOR ASPHALT MATERIALS also Increase RUTTING...

MINNESOTA has NEVER ALLOWED STUDED TIRES.....THEY Have WORSE RUTTING than we have here in Anchorage with studded Tires for THOSE who elect to drive them.....IT is an OPTION we will SELECT.....and we will GET AROUND ANY CRAZY TAX YOU TRY to FORCE ON TIRE SHOPS...ARE YOU GOING TO TAX CHAINS ALSO?...

DO You KNOW MANY .....MANY HILLSIDE VOTERS LIKE TO Have STUDED TIRES for SAFETY OF FAMILIES?

PLEASE RETHINK THIS CRAZY TAX.....Peter and Becky Aftreth and family of EIGHT DRIVERS...and SEVEN Grandchildren....

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**From:** Ace Worley [<mailto:dotguy47@yahoo.com>]  
**Sent:** Friday, February 17, 2017 11:03 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded Tire Tax

Senator Giessel,

I understand you have proposed legislation that will impose a tax on the purchase of studded tires.

Based on my experience driving in Alaska for 40 years on studded and un-studded tires I believe studded tires offer a substantial safety benefit to all drivers during the winter months.

Your legislation will make it less likely that a driver purchasing winter tires will choose the safer alternative, worsening a difficult driving condition.

The increase pavement maintenance costs associated with the use of studded tires are a small cost compared to the increased safety benefits to all drivers.

I ask that you reconsider your support for this issue and withdraw this ill-advise legislation.

Thank you,

Ace Worley

[dotguy47@yahoo.com](mailto:dotguy47@yahoo.com)

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**From:** Jane Giraldo [<mailto:jgiraldo@alaska.edu>]  
**Sent:** Saturday, February 18, 2017 8:48 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Senate Bill 50: Tire tax

Dear Representative Giessel,

I read with concern your proposal to raise the tax on studded tires from \$5 to \$75.

Doubtless you have a good motive--protecting our highways and our safety. But you seem to suffer a disconnect with the working class and poor people of Anchorage. For you, the cost of Blizzaks is reasonable; for many people, it's prohibitively expensive.

There are already many people who drive on unsafe tires because they can't afford better ones. Raising taxes so drastically would create hardship for them.

I urge you to look at this issue again. Consider what SB 50 would mean for tire sellers and for people who barely have enough money to survive on. Consider how greatly the tax would hurt some Alaskans and how little it would help defray road maintenance costs.

If you still think a tax is warranted, why not raise it 300% instead of 1500%? That just seems unreasonable.

What I foresee is that poor people won't buy good winter tires. That hurts the tire businesses but, much more importantly, creates dangerous driving conditions, not only for the people who can't afford taxes or Blizzaks, but also for the people they slide into. It could be you with your grandchildren!

Sincerely,

Jane Giraldo

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**From:** Yarger [<mailto:yarger1@gmail.com>]  
**Sent:** Saturday, February 18, 2017 6:07 PM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Cc:** Rep. Jennifer Johnston <[Rep.Jennifer.Johnston@akleg.gov](mailto:Rep.Jennifer.Johnston@akleg.gov)>  
**Subject:** SB50

Senator Giessel,

I am writing in opposition to your position and sponsorship of SB50. Reading your quote from the ADN, I was surprised to hear your belief that studded tires cause deep ruts in our highways/roads. Were you misquoted or do you not understand what is actually causing this damage?

There are DOT scales between Anchorage and Eagle River. When are they open? I have lived here over 8 years and have yet to see them operational. Are there any other scales that could be used to enforce commercial weight limits? Are the current weight limits reasonable considering the condition of our roads? Are there any mobile scales that check weights of commercial vehicles? If you haven't figured it out yet, the ruts you refer to on the Glenn Highway (and all other highways) are caused by commercial trucks, most of which are overloaded by 20,000-50,000 pounds. Attached is a study from Ohio State that clearly explains road damage and its causes.

Alaska's DOT oversight during the construction of these roads is clearly insufficient. I have personally witnessed large round rocks used as fill in the construction phase in the highway just outside Wasilla, northbound. Round rocks do not compact. Longevity of any road is dependent on its foundation. That foundation needs to be the correct material and compacted or it will fail.

I do agree that some surface damage to asphalt is caused by tire studs. There is more to the damage than just studded tires. Magnesium/Calcium Chloride are commonly used on icy roads to melt the ice. Chloride based deicers, acetate based deicers affect asphalt pavement. The damage comes about through the combination of chemical reactions, emulsifications, and distillations, as well as generation of additional stress inside the asphalt. Reference the black tar stuck to your car every spring. We commonly see fresh asphalt each summer. Why is it not chip sealed? Would you leave your new asphalt driveway without a seal coat? Most would suggest sealing it to preserve it. Many states will apply chip seal to preserve the asphalt, why is this not done in the state of Alaska?

The last point I will leave you with is safety. Studded tires provide an extra level of safety on our icy roads. This winter is the perfect example. Travel on the hillside would be treacherous without studded tires. Maybe not as bad with timely snow removal, but most families can't wait for days to get to work. Local governments are holding citizens hostage with purposeful neglect in clearing the roads and streets. The future revenue generation intent of this inaction is obvious. I wonder how much overtime was paid last year in an effort to spend budgeted dollars at the state and city level? The "use it or lose it" monetary policy is killing efficiency.

Consider some meaningful thought to the states budget and fiscal challenges. SB50 is misguided at best, ignoring the root causes of our poorly constructed, maintained and managed roads.

Denim Yarger

Anchorage, AK

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**From:** Margie C [<mailto:marglec@ak.net>]  
**Sent:** Tuesday, February 21, 2017 10:47 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded Tire Tax

Dear Senator Giessel,

I understand that we are in need of raising additional funds to bring our budget afloat, but I am strongly OPPOSED to a studded tire tax.

These are my reasons why:

Not everyone in Alaska drives the monster trucks. I do not.

I also believe, it's not just studded tires. When you drive down the road, do you go in the same tracks that are already created? I try to avoid the path for as long as I am able, to distribute wear on our roads.

Last year I ran all season tires on my Saturn and was unable to even get onto Tudor Road with maybe a 20% incline. I would get part way into the road, then just remain there as the traffic got closer and closer, and fear absorbed me. It was total unsafe, and waiting until there was no traffic to amble onto Tudor, is truly not an option when trying to go to work.

I also was unable to stop in a Safeway parking lot going less than 2 miles per hour and bumped into someone in front of me on the sheer ice. There was no grip.

Or have you ever had to keep rolling at the slightest m.p.h. just so the above doesn't happen? I have with all season tires.

And the cost of \$300 tax, would not generate the dollars you're thinking, mainly because they would be unaffordable for most that don't have those monster trucks. So maybe you feel that's a win as there's less studs on the road, but what I see is totally different. I see more slipping and sliding through intersections, running into the car or truck in front of you as you are unable to stop. I see more crashes with less control of the vehicle. Have you ever sat spinning at an intersection through 3 lights without being able to move? I have, and I did last year with my all season tires.

I just don't think it's a good idea to put our lives at risk by taxing studded tires out of existence. Please stop this bill.

**PLEASE SAY NO TO \$300 TAX ON STUDED TIRES**

Thank you,

Marjorie Crain

6018 E. 43rd Avenue

Anchorage, AK 99504

[margiec@ak.net](mailto:margiec@ak.net)

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From: Jim Wojciehowski [<mailto:wojo@ptialaska.net>]  
Sent: Tuesday, February 21, 2017 11:03 AM  
To: Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
Subject: SB50 - Studded tires

Dear Senator Giessel,

I have voted for you since you first ran. I do wish to express that I think the studded tire TAX is a bad idea even though I use Blizzak studless tires. Too many vehicles in the Anchorage bowl already are poor equipped with tires not designed for winter driving such as all terrain tires. I've seen front wheel drive cars stuck at flat intersections in icy conditions. Obviously these same vehicle can sliding into another car or even a pedestrian.

Making someone pay \$300 additional for studded tires will simply deter many from buying better winter tires.

SB50 makes no sense and should be opposed.

Jim Wojciehowski

February 20, 2017

Senator Bert Stedman  
Transportation Committee Chair

I am writing to you in reference to Senate Bill 50 and I would like to go on record opposing this bill.

Our Alaska tire dealer members have a responsibility to provide their customers with the best safety for winter driving; studded snow tires provide that added assurance. If SB 50 is passed into law it gives safety to only those who can afford the extra \$50 dollars per tire, which in most cases turns into \$200 for a set of 4 tires.

We realize that Senator Giessel has reduced the fee in her substitute bill from \$75 per tire to \$50 per tire; however we still believe that this added expense will be costly and very unfair. Not only is it unfair to the growing young families who in many cases need these tires on more than one vehicle, but it is also unfair to the senior citizens who are on fixed incomes and who need these tires to safely get to and from medical appointments and other needed trips.

Senator Giessel has also changed the weight of the studs from 1.1 grams to 0.5 grams, which would include the lightweight studs that are more road friendly. We are certainly not in favor of this change.

In May of 2004 the University of Alaska released the most comprehensive study done on studded tires in the United States. The Alaska legislature funded the research. The report had a broad focus on the overall socio-economic impact of studded tires. The 156 page report concludes that studded tires have a positive impact on the overall Alaskan economy. In summary, the Alaska School of Engineering concluded, **"Savings from avoiding crashes are the most substantial impact, and benefits the broadest range of groups including the state government, vehicle owners, passengers, and insurance companies."**

The technology of winter tires continues to improve. "Studless tires" with improved traction are growing in popularity, however tire manufactures continue to manufacture these tires pinned for studs for added traction and safety. Studded snow tires now have rubber compounds that minimize stud contact on dry or wet pavement, minimizing road damage. **All current major studies investigated indicate that studded tires provide improved traction on icy roads in acceleration, lateral movement and stopping over any tire available to the consumer.** The Alaska study concluded that there is no significant difference in performance of studded tires and non studded tires **on wet pavement.**

We do appreciate the fact that Senator Giessel has listened to our concerns of online sales, however there is no provision for enforcement of the fee. Currently states are finding it impossible to collect

sales tax on online sales, so how much more difficult will it be to collect this \$50 per tire fee from the online merchants who ship from outside the state.

**Studded tires reduce accident risk.** The Alaska study and the Washington State DOT 2003 consumer survey determined that studded tires are selected by consumers to improve the vehicle's surface traction in adverse conditions. Bans or higher user fees on tires studs will produce a net increase in costs

Thank you for listening to our concerns about this bill that we believe would have an adverse effect on the safety of Alaska's driving public.

Sincerely,

**Richard Nordness,  
Executive Director**

## TIRE INDUSTRY ASSOCIATION

www.tireindustry.org

### Tire Industry Association Position Paper

#### Senate Transportation Hearing 2/23/2017: Senate Bill 50

The Tire Industry Association (TIA) is an international non-profit association representing all segments of the tire industry, including those that manufacture, repair, recycle, sell, service or use new or retreaded tires, and also those suppliers or individuals who furnish equipment, material or services to the industry.

The mission of TIA is to promote tire safety through training and education, to act as the principal advocate in government affairs, and to enhance the image and professionalism of the industry so that our member businesses may be more successful. TIA has over 8,000 members from all 50 states and around the globe.

TIA opposes, SB 50, a bill seeking to raise the per-tire user fee from \$5 to \$50 relating to fees for the sale or installation of studded tires; and providing for an effective date. The user fee has been in place since 2004 at \$5.

TIA is concerned that the legislation prohibits low income families from having the safety option of studded tires. We need low-income families to have access to reliable transportation during the winter.

Many Alaska residents think studded tires are essential for winter driving safety and should not be taxed so heavily.

"I have studded tires which I'll be replacing this year and seeing this tax hike makes me upset, especially since I feel studded tires are essential, especially with the type of road conditions we have in Alaska," Harrison Jennings, UAA music student, said. "They've saved me in situations where if I didn't have my studs, I would've easily gotten into an accident, or worse."

If you drive more on icy roads than on snowy ones in winter, studded tires are a sensible choice. Studded tires are especially suitable if you live near the coast, where roads tend to be icy during the winter. Studded tires prove to be effective on ice more so than non-studded tires.

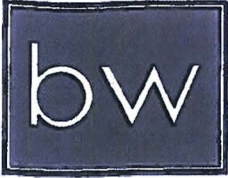
Many tire dealers in the state of Alaska install and maintain studded tires for residents in the state. This makes up a significant portion of their business. Customers are comfortable with the benefits that studded tires provide at an affordable price. The only other state that charges a studded tire fee is Washington State (\$5). The Canadian provinces do not charge a fee.

TIA asks opposition to SB 50 as the safety of the residents in the state should not be compromised.



Maryland Office:

1532 Pointer Ridge Place 800.876.8372  
Suite E 301.430.7280  
Bowie, Maryland 301.430.7283 f  
20716



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5 Westchester Plaza  
Elmsford, NY 10523  
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[www.brunowessel.com](http://www.brunowessel.com)

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February 22, 2017

Senator Bert Stedman  
Transportation Committee Chair

Dear Sen. Stedman,

I am writing to you in reference to Senate Bill 50, we would like to go on record opposing this Bill.

I have read thru Senators Giessel's list of oppositions, those in favor, her support documents, in fact all her data. I do appreciate the effort and intentions, but introducing a Bill that effects Alaska Citizens by removing a proven safety device and making misleading statements in her Sponsor Statement seems like just one more Bill that will anger many Alaskan's.

Her Sponsor Statement has much to be argued. Traffic, Heavy traffic such as tractor trailers, Sanding, Salting all contribute to road wear. VTI, VT, STRO are all organizations that have spent millions of dollars evaluating Road Wear, Environmental, Health issues and more in regards to Tire Studs. Their conclusion is Tire Studs are a safety device and necessary in Winter like climates like Alaska. Senator Giessel's statement "Alaskans do justifiably demand better roads, safer roads for their families", correct, why would you take that away with this Bill? There is no data period that shows tire technology has improved to be equal to studded tires. Not one study! Tire Technology has improved no doubt but so has studded tire technology. "Many Northern States have banned Tire Studs." Not since the 70's has a Winter state banned tire studs? The three states that banned studs in the late 70's Michigan, Wisconsin, and Illinois have not made any changes since, however, all State Police, Ambulance, School Buses, Mail Carriers, all essential emergency vehicles are permitted. Ontario reversed the ban several years ago and now allow Aluminum studs outside of the Toronto area. Quebec made it Law that Winter tires must be used during winter months.

Taxing Consumers who use studded tires is a mistake, it will make these tires unaffordable to many. We stand with Tire Dealers, Consumers and safety advocates that do not want to see this Bill passed.

Best Regards,  
Garry Wessel

**Garry Wessel**  
**Bruno Wessel Inc.**  
**5 Westchester Plaza**  
**Elmsford, NY 10523**  
[garryw@brunowessel.com](mailto:garryw@brunowessel.com)  
[www.brunowessel.com](http://www.brunowessel.com)

Concerning the tire fee's on studded tires.

For those about to die, I am sorry.

Have you ever ate corn on the cob?

Have you ever ate corn on the cob without teeth?

Studded tires are the gums, studs the teeth, notice the ease the cornels are removed from the cob.

Without the teeth the cornels do not so easily come off!

So too does the studded tire have the advantage in traction performance.

If you price the studded tire out of range, just like folks with no dental plan have a hard time with corn on the cob, they will forgo the studs and people will die.

Think about being hit at the traffic stop, going through the light and hitting a car, a bystander.

Ah! But in the quest to "Grove for dollars" we shall eliminate those who need studs to get around in wintertime safely.

In the rosey, posey world , everybody drives the subi with the blizzaks, but we Anchorageians can't all live up to that standard, and road ruts are a reality yesterday , today and tomorrow.

So cheap being cheap, and folks goin' through hard times and all, if this political thriller goes through, I for one expect some folks are going to die, and a politician will end Her career.

Thanks for your attention,

Cordially yours, Daniel McManus

Tire sales, and Bling Slinger, The Tire Pirate.

MEYER BROS MUFFLER CITY & BRAKE 105 WEST 5<sup>TH</sup> & A ANCH AK 99501 907-279-0408

I am writing this letter to Oppose Senate bill 50

To Whom I My Concern:

First off the #1 priority is safety.

Do not gamble on people's lives over money.

According to | " the Research Report T2695, Task 21 Studded Tire "

I found connected to Senator Giessel's SB 50 tire tax increase. The same study Jim Johnson used to get the steel stud tax passed for his own personal gain back in 2004. He was the only one who used alloy studs. The study showed that on icy road conditions the studded tire was superior.

In the report with the 3 vehicles they used here's the average:

FRONT WHEEL DRIVE CAR STOPPED 20 FEET SHORTER WITH STUDS OVER THE BLIZZAK STUDLESS

2WD P/U STOPPED 5.5 FEET SHORTER WITH STUDS OVER THE BLIZZAK STUDLESS

RWD CAR STOPPED 10.8 FEET SHORTER WITH STUDS OVER THE BLIZZAK STUDLESS

The overall average of the studded tire on icy roads stopping distance, (20'), (5.5'), (10.8'), = 12.8' shorter than the studless tire.

Basically, the study says the studded tire performs superior in many ways other than on dry pavement. I don't know about you "but I don't buy studded winter tires thinking how well they stop on pavement. It's the ice and others around me on the road I'm concerned with."

Has anyone ever slid through a stop sign or a stop light before maybe more than once?

Hold that thought I'll come back to that.

In the test conclusions, and the rest of the report there is a lot of mumbo-jumbo that can be very hard to decipher even for a 39-year veteran in the tire business like me.

If you notice this report was done for Washington State in Fairbanks, Alaska. This is what the mumbo-jumbo is about.

Fairbanks is cold and flat which makes it easier to control the data. No inclines, icy hills, rain, etc. I suggest reading the whole report keeping in mind conflicting conclusions such as #6 and #7. This is referring to a different test altogether. Tire manufactures know exactly what temperature would be optimal for their testing to get the desired results there looking for. This is how to control data. Anchorage can go from 20 degrees below 0 to 60 degrees above 0 in a 24-hour period. Tire companies I talk to said they would not do test in Anchorage for this reason. Being in business down town for 63 years I'm sure we know the subject matter.

To the answer for the question above. About sliding through a stop sign.

Customer comes in asks the salesman "What we think are safer? Studless or Studded'.

Salesman asks "Where do you live and who are they for?". Customer "My 16-year-old daughter" or 16-year-old son or grand kid. With no hesitation

"STUDED" IS ALMOST SCREAMED OUT BY THREE OF US AT THE SAME TIME. WE KNOW THE DIFFERENCE BETWEEN THE TIRES. THAT'S 5' TO 12' SHORTER OUT INTO THE INTERCECTION. THAT'S MORE THAN ENOUGH TO SAVE LIVES AND WE BELIEVE IT DOES.

It's not about what tire were going to make more money on. We sell safety 1<sup>st</sup>.

For us safety really is 1<sup>st</sup>. we drill and stud tires as a cost alternative. The problem with that is most tires we've seen in the last 5 months have been worn beyond 2/32nds. The throw away mark. Even doing a flat repair I'd rather give them a used tire for the cost of the flat repair on a tire that's not even safe to drive on in summer let alone this winter. People just don't have the money right now especially with all the pay cuts and layoffs.

Most people I talk to in all kinds of businesses are down 20 to 30 percent if they even have a job. I've been standing at the counter on 5<sup>th</sup> & A helping people for 39 years I haven't seen things this bad since the 80s. This is not the time to put the Burden on us we are trying to survive ourselves.

Sincerely, ALFRED MEYER

THE NEW TAX WILL KILL PEOPLE AND WHO ARE THEY GOING TO BLAME.

From: Sharon Trager [mailto:trager@gci.net]  
Sent: Wednesday, February 22, 2017 5:11 PM  
To: Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
Subject: Proposal to tax studded tires

Senator Geisel,

I am a retired educator residing in your district.

Last year , after many years of accident free driving in the Anchorage area ,my husband and I decided to give the winter tires a try. This last week after approaching an intersection and beginning to brake , my car continued to slide past the light before finally coming to a stop.

We decided we are much safer in our area with our variable conditions to have studded tires.

I was much dismayed at your proposal to tax these tires which afford us safety and in addition the exorbitant amount suggested. Once again the middle class takes the hit. This tax on an already limited income is outrageous.

How much funding is used to assist all the accidents occurring with vehicles unequipped to handle ice? A small tax I could understand but your proposal is disturbing.

Sincerely,

Sharon Trager  
1611 Early View Drive  
Anchorage,99504

Sent from my iPad

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From: Short Family [mailto:short@mtaonline.net]  
Sent: Wednesday, February 22, 2017 8:51 PM  
To: Sen. Cathy Giessel <Sen.Cathy.Giessel@akleg.gov>  
Subject: Studded Tires

Senator Giessel,

I completely disagree with your studded tire tax. You said that it costs a million dollars a mile to fix the roads. So under my estimate let's say 100,000 families can afford and purchase new tires next year and they pay the \$50.00 per tire tax that's a revenue of \$20 million (not counting the staff you'll have to hire to collect and manage these fees). So, you are going to put lives in danger because families may not be able to afford this tax in order to repave 20 miles of highway? This fall we paid \$1,200.00 for a set of Tahoe tires. We paid \$900.00 for a set of studded tires for our 16 year old that just learned to drive. Your tax would have added \$400.00 to our families budget. It already costs a lot to live in Alaska. Why don't we work on fixing the state budget and tap the abundance of resources in Alaska, cut spending in Alaska for unnecessary programs in Alaska before we tax working families that are just trying to keep our families safe. My husband commutes from the Valley 5 days a week year round. Anchorage does a terrible job maintaining their roads because they refuse to put sand on them. Having studs is necessary. Have you ever commuted from the Valley in the dark at 5am during an icy snowstorm?

It sounds like a simple solution but all this for maybe 20 miles? That's not going to fix the problem. We would be happy to take a commuter rail but there isn't one.

Please reconsider your tax and let Alaskans make the choice whether they feel comfortable with the studless tires or studs. I'm going to drive my 4 children around with studs on because it's my job to project them and where we live we need them.

Lisa Short  
Valley Resident

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**From:** Paul Wharton [<mailto:paul.k.wharton@gmail.com>]  
**Sent:** Friday, February 24, 2017 10:23 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** No on tire studs tax

Your proposed tax on tire studs is misguided and compromises public safety. It's not going to fix budget gap which can only be meaningfully addressed by significantly reducing size of state government and eliminating entitlements. It also improperly shifts risk to public. The state roads and proper maintenance are to serve the public. Your proposal would elevate DOT maintenance concerns above public safety. Your tax would negatively affect safety of all drivers not just those that choose not to purchase studs. For example let's say I choose safety and bought studs and another driver chose economy and didn't buy studs. The other driver may hit me and cause me injury and property damage because they are not able to avoid collision on icy roads. So your proposal is no good. You should withdraw this ill conceived proposal.

Regards,

Paul Wharton  
Gird wood, Alaska

Sent from my iPhone

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**From:** Donna Maupin [<mailto:maupin@gci.net>]  
**Sent:** Monday, March 06, 2017 4:46 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Stud tax

Stop it. Why don't you do your job and focus on the budget and getting more oil in the pipe and drop this stupid stud tire tax bill. Here are my issue

- If you tax this much no one will buy them and there goes any extra tax revenue. Actually you will loose any tax you are collecting now.
- It is not clear if studded tires are the real problem. You also have soft road material and overweight commercial trucks.
- You will also have a safety issue. I don't care what your experts say, studded tires get better traction then non studded tires.

- You % of studded tires purchased are misleading. You counted all tires purchased to include summer tires. I hate it when you politicians try to mislead us.

So just stop it and work on the budget.

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**From:** Betsy Nobmann [<mailto:bnobmann@customcpu.com>]  
**Sent:** Saturday, February 25, 2017 9:41 AM  
**To:** Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** Studded tire tax

Dear Senator Giessel,

I oppose the bill to tax studded tires for the following reasons.

- It is an unfair burden on drivers using studs, as automobiles without studs and trucks also contribute. There are more of them than studded tire users according to news reports.

- Studded tires are only used half of the year, so again studded tire users would be paying taxes for something they don't contribute to for half the year.

- Some drivers including me feel safer with studded tires.

- I live with a steep driveway and northern exposure for my home contributing to a need for studded tires to get into the garage.

- I own two vehicles, one of which only makes weekly trips to the grocery store two miles away, so I am not on the roads that much but would be paying this tax for each car.

- The bill does not address whether this tax affects new tires only, or if you intended to tax users each fall when they have studded tires mounted. If the latter, again this is a burden even with the reduced amount of \$50/tire.

- A better option if you wish to tax drivers to potentially maintain roads is to put a state tax on gasoline that would be a proxy to tax road users proportionately in relation to the miles they drive.

I am encouraged that you are considering ways to meet the fiscal deficit, but I do not feel that this bill/concept would contribute that much.

Thank you for soliciting input and considering my position.

Sincerely,

Elizabeth D. Nobmann

Constituent and Super voter

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Alexander Strong  
15731 Southpark Loop  
Anchorage, AK 99516-4850  
February 18, 2017

The Honorable Cathy Giessel  
State Legislative Office Bldg  
1500 West Benson Blvd.  
Anchorage, AK 99503

Dear Senator Giessel:

I am writing you to urge you to reconsider your bill to apply a \$50 per tire user fee to the purchase of studded snow tires. Instead, I ask that you leave the existing \$5 user fee on the purchase of studded tires as it currently stands, and apply a new user fee to the purchase of all tires, with the new fee ranging from \$10 to \$18 per tire in accordance with the associated vehicle's weight and use. Under this arrangement I believe that more revenue would be generated than under your proposal and the burden of such a program would be more equitably spread across all highway users. I also believe such an arrangement would be less unfavorably received by Alaskans than that which you are currently proposing.

More specifically, the fee arrangement I suggest, which is designed to correspond to vehicle weight, is as follows : 1) \$10 per tire sold for sedans, light SUVs, and small pick-up trucks; 2) \$14 per tire sold for pick-up trucks and vans rated at more than 1/2 ton, and for large SUVs; and 3) \$18 for remaining vehicles which would include motor homes, all trucks and vans rated at over 2 1/2 ton capacity, and all buses and commercial vehicles.

The reason I advocate this approach is that much of the significant vehicular damage our roads incur is a function of the weight of vehicles passing over the roads. The effect of the repetitive compression from the passing vehicles extends deep on into the subsurface structure of the roadbed which, with time, leads to a depression in the road surface and, in turn, requires major expenditures to correct. In contrast, the

the damage studded tires cause is confined to the top surface of the road while positively offset by the instances of additional vehicle control and safety provided by the tire studs.

In regard to studded snow tires, I agree with you that the modern snow tires without studs do perform well in snow and slush. However, it is on ice covered surfaces such as result with the melting and refreezing of snow, or where only a thin layer of ice remains, that studded tires make a real difference. If only a few dozen collisions or other mishaps (with attendant property losses and personal injuries) are prevented each year by not discouraging the use of studded tires, surely the limited damage studded tires do to the road surface is justified. And if the user fee arrangement I suggest were approved, it would undoubtedly bring in more revenue to the state and be less onerous and more easily tolerated by Alaskans than a \$50 user fee per studded tire.

I hope you give my thoughts serious consideration. I, as so many others, stand firmly opposed to your currently proposed studded tire user fee. It seems most unreasonable to force us to bear such an additional expense to achieve the rather basic increased margin of safety on our winter roads that studded snow tires provide.

Sincerely yours,

A handwritten signature in cursive script that reads "Alex Strong". The signature is written in dark ink and is positioned centrally below the typed name.

Alexander Strong

# TIRE COST COMPARISON

AMOUNT BASED ON COSTS FOR 2015 DODGE RAM 1500 17" TIRES 265-70-17

	Studded	Non-Stud (Blizzaks)	Difference
COSTCO	NO STUDS	\$895	XXXXXXXXXX
SAM'S CLUB	\$700	\$832	Stud \$132
LES SCHWAB (Juneau Only)	\$1,155.56	\$1,356.02	Stud \$200.46
ANCHORAGE TIRE FACTORY	\$1,050	\$830	Non-Stud \$220
ALASKA TIRE & RIM	\$829	\$809	Non-Stud \$20
MIDAS - (Artic Claw)	\$1,044.96	\$891.96	Non-Stud \$153
ALASKA TIRE SERVICE	\$717.80	\$883.80	Stud \$166
SEARS	NO STUDS	\$1,013.76	XXXXXXXXXX
AMERICAN TIRE	\$1,010	\$1,020	Stud \$10
ALYESKA TIRE	\$1,009.80	\$971.80	Non-Stud \$38
AMAZON.COM	\$756.00 (no install)	\$852.92 (no install)	Stud \$96.92
TIRE RACK	\$1,129.80	\$927.08	Non-Stud \$202.72
<b>AVERAGE COST:</b>	\$940.29	\$940.27	

## David Scott

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**From:** David Scott  
**Sent:** Monday, February 13, 2017 2:33 PM  
**To:** David Scott  
**Subject:** FW: SB50

**From:** Craig Douglas [<mailto:craig6578@gmail.com>]  
**Sent:** Monday, February 13, 2017 1:27 PM  
**To:** Sen. Bert Stedman <[Sen.Bert.Stedman@akleg.gov](mailto:Sen.Bert.Stedman@akleg.gov)>; Sen. Anna MacKinnon <[Sen.Anna.MacKinnon@akleg.gov](mailto:Sen.Anna.MacKinnon@akleg.gov)>; Sen. Click Bishop <[Sen.Click.Bishop@akleg.gov](mailto:Sen.Click.Bishop@akleg.gov)>; Sen. David Wilson <[Sen.David.Wilson@akleg.gov](mailto:Sen.David.Wilson@akleg.gov)>; Sen. Dennis Egan <[Sen.Dennis.Egan@akleg.gov](mailto:Sen.Dennis.Egan@akleg.gov)>; Sen. Cathy Giessel <[Sen.Cathy.Giessel@akleg.gov](mailto:Sen.Cathy.Giessel@akleg.gov)>  
**Subject:** SB50

In regards to SB 50 to implement a studded tire fee; currently the state statues regarding studded tired out of season only allows for a correctable citation, in which the drive can do a tire change over and then not be fined for the time prior driving with studs. What incentive is there for law enforcement to pull over drivers with studded tires in the summers if the citation if correctable? Changing the citation to a mandatory pay would be an incentive for drivers to get their tires changed over by the deadlines and would give law enforcement a reason to cite drivers.

Thank you,  
Craig Douglas