

Why a Road Use Fee for Construction and Heavy Trucks?

Washington State

Washington State charges additional fees for heavy trucks to help offset the disproportionate damage these vehicles cause to public roads. According to established engineering and testing calculations, commonly known as the **Fourth Power Law**, pavement damage increases exponentially as axle weight increases. As a result, a single fully loaded 80,000-pound truck can cause approximately the same amount of pavement damage as 5,000 passenger vehicles.

To help recover these infrastructure costs, Washington imposes several fees and taxes on heavy trucks, including the Public Utility Tax (PUT) based on revenue, the Washington State Department of Transportation (WSDOT) mileage-based tax, and the federal Heavy Highway Vehicle Use Tax.

Raccoon Point Road

Raccoon Point Road is a chip seal road, which is significantly less durable than the asphalt highways and freeways used in studies referenced above. Although precise damage calculations are not available for chip seal roads, the same principles regarding axle weight and pavement wear still apply.

A fully loaded three-axle Orcas Sand and Gravel truck weighs approximately **50,000 pounds** (about **10 cubic yards** of material). Based on the Fourth Power Law, a truck of this weight is estimated to cause pavement damage equivalent to approximately **1,500 to 3,000 passenger cars**, assuming an average passenger vehicle weighs about **4,000 pounds**.

The impact of a 50,000-pound truck can result in the following:

- **Asphalt (Flexible Pavement):** The heavy load causes the pavement to compress and flex. Repeated truck traffic leads to permanent rutting (depressions in the wheel paths), fatigue cracking, and accelerated pavement deterioration.
- **Chip Seal and Gravel Roads:** Roads with thinner pavement structures or unpaved surfaces are even more vulnerable. Heavy trucks can quickly compact the base, create deep wheel ruts, trap water, and accelerate the formation of potholes and surface failures.

Note: Water creates significant damage to Raccoon Point Road. Adding the weight of excessively heavy trucks (up to 50,000 lbs.) accelerates road damage initially caused by water runoff.

Spring Point Road, Deer Harbor

Homeowners Association charges Construction Road Fees for most construction, building projects and other significant projects undertaken by both Property A and Property B owners to help defray the cost of maintaining the roadways in Spring Point.

Special Assessment Road Use Fee (RUF)

Raccoon Point Road is a private rural road maintained by property owners within the Raccoon Point Road Maintenance Association (RPRMA). As stated on the RPRMA website home page, the purpose of the RPRMA is to maintain the road.

Heavy construction trucks cause greater damage to private roads than normal residential traffic. The purpose of the Road Use Fee (RUF) is to partially defray the costs associated with disproportionate wear and tear caused by transporting excessive fill material and building and construction materials by heavy trucks.

The proposed RUF is based on San Juan County's permit fee schedules. Using county permit fees provides an objective and consistent method for estimating the relative impact of projects on the road.

The RUF will be calculated as a multiplier or percentage of the total permit fees charged by San Juan County and prorated in accordance with the RPRMA Bylaws under **Assessments**, Page 2, Item 6.*

A. RFU Fee Calculations

1. RUF fees for cut, grading and fill projects

The current San Juan County permit fee for projects involving more than **500 cubic yards** is **\$450**. Additional county fees of **\$210** may apply for work in critical areas, such as shorelines or steep slopes. Projects exceeding **1,500 cubic yards** are subject to further permit fees.

These permit fees are extremely low, given the high impact and the number and weight of gravel trucks allowed.

Using the current county permit fee schedule of \$450 for a minimum of 500 cu/yd a multiplier for RUF is proposed as follows;

Region	A	B	C
Allocation	2x	3x	6x
RUF	\$900	\$1,350	\$2,700

Note: Orcas Island Sand & Gravel Trucks typically carry 10 cu/yds and weigh 50,000-pounds or 25 tons. Therefore, 500 cu/yd equals 50 gravel trucks and the permit cost would not increase until 1500 cu/yds or 150 gravel trucks.

2. Building and Construction and other Land Use Permits

RUF fees would be assessed based on the allocation schedule below. The permit fees are largely based on building valuation. A building permit issued in 2023 with total permit fees of **\$10,878** for a building valuation of **\$485,975** would result in the following Road Use Fees:

Region	A	B	C
Allocation	6%	9.4%	18.1%
RUF	\$653	\$1,023	\$1,969

Note: Building and construction projects typically use large trucks including excavators, cranes, graders, cement and pump trucks, dump trucks, and flatbed trucks for delivering materials.

B. Administration

To administer the program, an annual Public Records Request will be submitted to San Juan County to identify permits issued within the Raccoon Point Road community. Applicable Road Use Fees, based on total permit fees, for Items 1 and 2 above, will then be added to annual assessment invoices. Implementation of the program will begin on October 1, 2026 and will extend for a duration of 5 years. Fees under \$100 will not be billed.

*Note: Revenue collected under the RUF program is expected to be substantially less than the 25% threshold and therefore will not trigger RPRMA **Special Assessments for Improvements and Upgrades**, Page 3, Item 7. The fees collected will be added to the chip seal reserve.