



The above photo shows road damage caused by heavy vehicles during a freeze/thaw event.

Emergency Road Restrictions Fact Sheet

During a freeze/thaw cycle heavy vehicles on a road can cause microscopic cracks that are forced to open wider until more moisture is allowed into the road base. This process can produce potholes, alligator cracking, and eventually, total road failure that can cost thousands of dollars in damages.

Road restrictions are a way to protect and preserve the taxpayer's valuable investment in the County's road system.

Why does the county enact emergency weight restrictions?

To minimize costly road damage caused by the thawing after a prolonged cold spell.

How is pavement damaged by a freeze / thaw event?

When the road base freezes below the asphalt surface, water is frozen in the road base. When thawing begins, the base thaws from the top down. Trapped water can't drain through the frozen base below. The base, now full of water, can't support heavy loads. Truck traffic deforms cracks or breaks up the asphalt road as water is pumped to the surface.

Why restrict gravel roads?

The same principles are in play for gravel roads. Not having the strength of an asphalt surface for traffic to run on compounds the problem and the effects are immediate.

How does the Public Works Department decide if restrictions are necessary?

As a cold spell comes to an end, test holes are made county wide and frost depth measurements are taken. This data, along with temperature forecasts, are reviewed by the Public Works Director and the County Engineer, and a decision to restrict traffic is made.

How deep does the frost need to be for concern?

When frost depths are six inches or more, restrictions are looked at closely. For the January 10, 2011 event, data showed frost depths of 6 to 12 inches county wide.

How long will restrictions last?

Road restrictions are in effect until the road base is thawed, and water has drained out of the road base. When this happens, the road base is stabilized. How long this process takes can vary greatly due to weather conditions, but generally takes 7 to 10 days after the end of freezing temperatures.

How do I find out more information on what roads are restricted?

You can find a list of county roads that affected by the weight load restrictions on the Mason County website at www.co.mason.wa.us. During business hours, you can call Public Works at (360) 427-9670 ext. 450