

Pennsylvania Local Roads Program

Posting and Bonding Local Roads*A Solution to Damages Caused by Heavy Haulers**by Alan L. Gesford, LTAP Engineer*

LTAP
Technical
Information
Sheet
57
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Spring is just around the next snowstorm. That means spring thaw, excess water, and road problems - mud season is here! The road problems begin when your roads can't shed that excess water as the ground thaws from the top down. This water then tends to keep the roads saturated and soft and heavy traffic starts the pavement breakdown. One method of combatting this process is to post spring weight limits on these roads. Should heavy haulers need to use these roads, they can be bonded by agreement to pay for damages due to their hauling.

This seasonal restriction can also be applied year round on any of your streets or roads which are sustaining damage from heavy haulers. The program we are referring to is "Posting and Bonding of Local Roads."

Why Post and Bond a Road?

Posting and bonding of local roads involves two main ideas:

First, we are posting weight limits on certain roads or sections of roads that would suffer excessive damage by vehicles transporting weights over and above the posted limit.

Second, because heavy haulers may have to use these roads or road sections, we are entering into an agreement with these haulers to allow them to use the road provided they pay for any excessive damage due to their hauling. The agreement requires a bond from the haulers to insure that they will pay.

Program Goal

The goal of a posting and bonding program is to make heavy haulers pay for the road damages they have caused. The goal is *not* to generate revenues. And the program will *not* completely stop heavy haulers from using the posted roads.

Pennsylvania State Law and Regulations

A posting and bonding program is governed by Pennsylvania State Law and Regulations-Title 75, Vehicle Code, Chapter 49, Section 4902, Restrictions on Use of Highways and Bridges and 2nd Title 67, Transportation, Chapter 189, Hauling in Excess of Posted Weight Limits.

In conjunction with these laws, PennDOT has developed Pub 221, *Posting & Bonding Procedures for Municipal Highways*.

This publication provides excerpts from the laws and regulations pertaining to posting and bonding which apply to any State or locally-owned road for which a weight restriction is established. It also contains guidelines for administering a program and a sample agreement to bond heavy haulers.

If you intend to post any roads, the regulations must be followed. And when followed, you *can* realize a saving for your municipality in the fact that the heavy haulers will be responsible for the cost of repairs to damages they cause. Therefore, the cost to make these repairs will not be paid for out of your funds.

We can break the procedures for establishing a program as follows:

- A. Posting Procedures
- B. Bonding Procedures
- C. Monitoring Procedures

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A. Posting Procedures

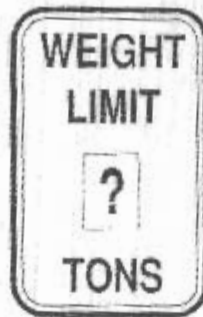
- **Step One:** The first step in posting procedures is to have an Engineering & Traffic Study done on the road you intend to post with a weight limit restriction.

This study should follow PennDOT Publication 201, Engineering and Traffic Studies, subchapter G. This publication states that an engineering and traffic study may warrant a weight restriction based on pavement analysis or past experience. A pavement analysis involves a structural analysis of the roadway pavement -- taking cores and having them analyzed in a lab as to structural strength for traffic loads.

Past experience involves gathering information from records and from someone who has worked for the municipality for a long period of time. This person should know what conditions prevail, know what damage has happened in the past due to heavy hauling, and have expertise in the road construction and maintenance area.

Establishing an actual weight limit number based on past experience alone, however, can be quite arbitrary and very open to argument. We, therefore, recommend a pavement analysis be performed to establish a concise weight limit based on actual testing. This approach will help preclude potential problems arising over enforcement or through court actions. A pavement analysis performed by a certified lab will stand up in court far better than a decision based on past experience alone.

- **Step Two:** The next step in the posting process is an ordinance. The ordinance may stand alone or be a part of your overall Municipal Traffic Ordinance. The ordinance must be advertised and passed as you would any other ordinance.
- **Step Three:** Concurrent with ordinance advertising, the next step is to notify all known users of the road to be posted. Should their transported loads exceed the proposed weight limit, this will

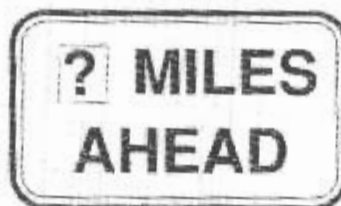


Weight Limit Sign (R12-1)

give them a chance to enter into an agreement or find an alternate route.

- **Step Four:** Once the study is completed, the ordinance is passed and known users notified, then the proper signing must be installed. All signing must meet PennDOT regulations for traffic signs (Pub 68) as to sign message, size and placement. The Weight Limit Sign (R12-1), shall be used and should be located immediately in advance of the section of road to which it applies. In case of an extended length, it should be placed on the right-hand side of the restricted road not more than 25 feet beyond an intersection so as to be clearly visible. A supplementary sign may be necessary on the left-hand side. The standard size is 24" x 30".

In those cases where a single sign would not adequately pre-warn the motorist, an advance warning sign should be placed using the Miles Ahead Sign (R12-1-1) mounted below it. This would happen on roads where the restriction does not begin or end at an intersection. Thus the advance warning should be posted at the intersection nearest each end of the



Miles Ahead Sign (R12-1-1)

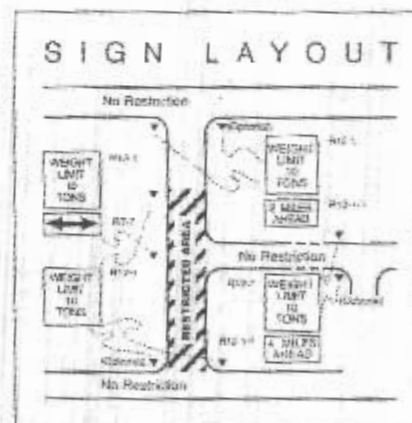
restricted road indicating the appropriate distance to the restriction. If the distance is less than 1 mile, the distance in feet and the term "FT" may be used in lieu of the miles sign.

A seasonal Weight Limit Sign (R12-1-4) may be used when the roadway is weakened because of climatic conditions, especially during the spring thaw. This sign identifies the applicable months and can use a designation such as "FEB thru MAY", if it is not possible to identify each month.



Seasonal Weight Limit Sign (R12-1-4)

Diagram 1 (below) shows the proper placement of the signs including advanced warning signs.



- **Step Five:** The last step in the posting process involves notifying the proper enforcement agency (i.e., the State Police or your local police). You should notify them about:
 - a) Each new posting
 - b) Each new agreement (and cancellation of agreement)
 - c) Other known local traffic that will damage the posted road
 - d) Removal of a posting (seasonal posting)

B. Bonding Procedures

Now that you have properly posted your road in accordance with the requirements, you must address the heavy haulers that need to use the posted road.

- **Step One:** First, enter into an *Excess Maintenance Agreement*. There are 3 types of agreements, all of which include a *permit* to exceed the posted weight limit restriction.

Type 1 Agreement: This type is used when the hauler requires the use of a posted road and the posting authority anticipates that a lot of damage will occur. In this case the hauler (or user) has control over the heavy hauling vehicles traveling the road (e.g., coal mining or stripping operations or landfills). The user must issue *each* vehicle traveling the road a copy of the permit.

Type 2 Agreement: This agreement type is the same as Type 1 except that the user has no control over the heavy hauling vehicles (i.e., Other companies are involved in hauling the user's raw materials or final product). In this case the user must post the permit in the office window at the pick-up and delivery location. This posting must be visible to the enforcement agency.

Type 3 Agreement: This agreement type covers all posted roads in your municipality. It is employed when the use of the posted road is short-term and the posting authority would anticipate minimal damages by the hauler (e.g., some logging operations or well drilling operations).

- **Step Two:** For each type of agreement, regulations must specify the amount of security that the posting authority is legally allowed to require. The user shall then provide this security and will be bonded by it.

- **Step Three:** Once you have decided which type of agreement and amount of security is needed, then you must decide who performs the required excess maintenance due to the heavy hauling. Two options exist.

Option A: The municipality or its contractor may perform the work and invoice the user for the cost.

Option B: The user or his/her own contractor may perform the required work.

- **Step Four:** Make a preliminary inspection. In order to determine the user's responsibility once he starts hauling, a preliminary inspection of the posted road is needed. Note all damages at all locations to establish existing conditions prior to the agreement being executed. The municipality and user shall both be represented at the inspection and a report form shall be completed. The user shall receive a copy of this report. The report is attached to and becomes part of the agreement. The costs of inspections shall be paid by the user or permittee. A guide for charges is included in Pub 221.
- **Step Five:** Execute the agreement and issue the appropriate permit to the user.

C. Monitoring Procedures

After execution of the agreement, the municipality should monitor the condition of the posted road and should notify the user to make any necessary repairs if Option B (above -- under Bonding Procedures, Step Three) was selected, or repair the damage and bill the user if Option A was selected.

Monitoring the road condition will necessitate that re-inspections be performed on a routine basis. The regulations state that re-inspections will be made:

- a) Upon issuance of any new permit.

- b) From time to time as the posting authority determines repairs may be required.
- c) Upon termination of any permit.

A good rule to follow in timing the re-inspections is never to allow the cost for repair of excess damages to exceed 75% of the security amount.

Remember, the municipality cannot make the user *improve* the road, only restore it to the state of repair existing at the time of the preliminary inspection. The user is only responsible for damages caused by heavy hauling. He or she is not responsible for normal maintenance activities that would routinely be performed anyway.

So how do we determine normal maintenance and excess maintenance? Maintenance records for the posted road or similar roads can aid in this determination. Pub 221 also has charts that you can use to help in determining what is what for both paved and unpaved roads.

All inspections fall under the guide-lines for inspection costs charged to the user.

In addition, you must make a final inspection after the user has completed his hauling and no longer requires the use of the posted road.

Other Concerns

Local deliveries are allowed on the posted road. They are only required to enter into an excess maintenance agreement if the municipality determines that the local delivery is doing damage.

If there are several users hauling over the posted road, excess maintenance agreements should be prepared between the municipality and each user. In this case, costs for damages should be pro-rated based on trips or tonnage hauled -- unless circumstances dictate otherwise.

Record keeping is an essential part of the program. Inspections can make this record keeping much easier and most efficient. Publication 221 has various samples of forms that you can adopt for your municipality's use.

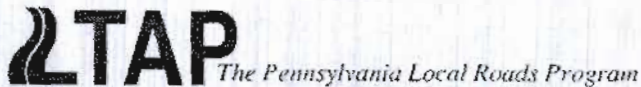
Need Help?

Each PennDOT District has a Posted Highway Coordinator. Use your PennDOT Municipal Services representative to introduce you to your district coordinator and use their assistance in setting up your Road Posting and Bonding Program.

The last page of Pub 221 lists the phone numbers of the PennDOT District offices.

In addition, LTAP can provide you with a half-day training session at your municipal site on *Posting and Bonding of Local Roads*. This session covers in detail the regulations, security amounts, and inspection procedures. It reviews a sample agreement and provides you with a copy of Pub 221. Call now to schedule your LTAP program, at no cost to you or your municipality.

Protecting our roads and the large investment we have in our roads is essential. By implementing a posting and bonding program, we are doing just that -- protecting our roads from heavy loads and, if needed, from heavy hauling. Posting and Bonding can make sure that excess damage is paid for by the heavy haulers who have caused the damage. ■



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