Recent development of the natural gas industry has increased the amount of heavy truck traffic using Pennsylvania’s roadways. To protect and preserve the roadway structural integrity and still allow industrial development, municipalities should establish weight limits on roadways. Under state law, any hauler exceeding the posted weight limit is responsible for the excess maintenance on the roadways.

Posting and bonding by agreement can ensure the hauler or haulers pay for any damages they cause to the roadways. In this way, the roadway systems can be maintained for simultaneous use by all vehicles, including those that exceed the posted weight limit.

THE GOALS OF POSTING AND BONDING
The posting and bonding of local roads involves two main ideas:

Posting  – Posting weight limits on certain roads or sections of roads helps to protect roads that would suffer excessive damage by vehicles transporting weights over and above the posted limit.

Bonding  – Because heavy haulers may have to use these roads or road sections, state and local governments enter 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 security from the haulers to ensure that they will pay for their damages.

The goals of a posting and bonding program are to ensure no deterioration of the existing road conditions occurs due to heavy hauling and, if it does, to make heavy haulers pay for the road damages they have caused. The goal is not to generate revenues.

PENNSYLVANIA STATE LAW AND REGULATIONS
A posting and bonding program applies to the posting of weight restrictions by municipalities with respect to roadways under their jurisdiction based on the structural condition of the roadway as authorized in PA 75 C.S. 4902 (a) and 67 PA Code, Chapter 189, Hauling in Excess of Posted Weight Limits.

This publication provides excerpts from the laws and regulations pertaining to posting and bonding that would 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. It does not apply to restrictions based on traffic conditions (safety postings) as authorized under 75 PA C.S. 4902(b) and 67 PA Code, Chapter 193 of the Vehicle Code, or to bridges posted independently of highways as authorized under 67 PA Code, Chapter 191.

To post any roads, state and local governments must follow the regulations. The information in this tech sheet provides an overview of the process. PennDOT Publication 221 contains specific details, forms, and checklists that can be used to aid municipalities in the process.

POSTING PROCEDURES
The following steps provide an overview of the procedures for posting weight restrictions on roads:

1. Perform Engineering & Traffic Study
This is the first step in the process. The study should be done in accordance with PennDOT’s Traffic and Engineering Manual (Publication 46) and kept on file in the municipality. The study must be signed by a professional engineer (PE), and the format should follow PennDOT form TE-109. The study will look at the following:
• Geometric review of roadway width, vertical and horizontal clearance, turning radii
• Past experience of highway breakup
• Pavement analysis
• Traffic volume-average daily traffic (ADT)

Past experience involves gathering information from records that show what damage has happened in the past due to heavy hauling. A pavement analysis involves a structural analysis of the road pavement. Seasonal postings may be used in cases where the engineering and traffic study and engineering judgment indicate permanent postings may not be necessary. However, the final determination will be the responsibility of the municipality.

2. Establish Local Traffic Definitions and Exemptions
In accordance with PA Code, Title 67, Chapter 189.3, the municipality may designate certain traffic as local, and this traffic may be exempted from the permitting and bonding procedures. “Local traffic” is defined in the regulations as:
• Emergency vehicles
• School buses
• Vehicles and combinations of governmental agencies and utilities of their contractors engaged in construction or maintenance on a posted highway or in a location that can be reached only via a posted highway
• Vehicles and combinations going to or coming from a residence, commercial establishment, or farm located on a posted highway, or which can be reached only via a posted highway

Generally over-posted-weight local traffic may exceed posted weight limits unless the municipality determines that the over-posted traffic is likely to damage the highway. If such a determination is made, the municipality must notify the registrants of the vehicles or owners of the destination or destinations, or both, as well as the state and local police. After two business days following delivery of the notice (or after five days following the mailing of the notice), such over-posted-weight vehicles must not exceed the posted weight limits except in accordance with the provisions relating to use under permit.

Proof of local traffic status can include the following documents:
1. A bill of laden, shipping order, or similar document, which shows a destination on the posted highway.
2. Certification by the permittee or an official of a permittee company on the company letterhead describing the local traffic nature of the activity that the vehicle is engaged in.

The municipality, at its discretion, may issue a “local hauler permit” to any user that it determines will not cause significant damage to the highway. If conditions change, the local traffic status may be revoked through issuance of an “excess damage-local status letter.”

3. Adopt a Local Ordinance
If the engineering study indicates that traffic should be prohibited or restricted on a locally owned highway, the municipality must pass an ordinance. This ordinance must be advertised and passed the same as any other municipal ordinance. The highway number and name should be shown in the ordinance. If the restriction is only for a portion of the highway, then that portion must be clearly identified.

4. Provide a Copy of the Local Posting Ordinance to the Enforcement Agencies
The appropriate enforcement agency should be provided with a written notification of the following items:
• Each new posting established by ordinance and the reason for the posting
• Each new excess maintenance agreement and each cancellation of an existing agreement
• Local traffic that has been determined to likely cause damage and is now required to enter into an excess maintenance agreement.
• Each removal of a posting through adoption of a repealing ordinance

5. Advertise Notice of Posting
Advance notice of the posting should be published at least twice in one or more newspapers of general circulation in the municipality in which the road is located. The first notice should be published a minimum of five business days prior to the posting. The municipal codes require published notice for ordinance adoption prior to the meeting at which it will be enacted.

6. Contact Known Users
The next step is to notify all known users of the road to be posted. If their transported loads exceed the proposed weight limit, then the notification will give users the opportunity to enter into an agreement or find an alternate route.

7. Enforce Posted Weight Limits
The user is responsible for the posted highway to determine if any overweight vehicles are violating the posted weight limit. The municipality must report possible violations to the appropriate law enforcement agency.

8. Erect Weight Limit Signs
Once the study is completed, the ordinance is passed, and known users notified, then the proper signing must be installed. The Weight Limit (X) Tons signs, R12-1, are used to restrict the weight permitted on a highway. The signs must be erected in accordance with Title 67, PA Code, § 212, and Title 75, PA Code, § 4902.

The weight limit sign 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 it is clearly visible. A supplementary sign may be necessary on the left-hand side. The standard size is 24 by 30 inches.
In those cases where a single sign would not adequately 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 restricted road indicating the appropriate distance to the restriction.

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.

**AGREEMENTS WITH USERS**

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. We will continue with the steps required as part of the entire posting and bonding process.

9. **Define Normal Maintenance versus Excess Maintenance**

   The regulatory definition of normal maintenance is “The usual and typical activities necessary to maintain the roadway, shoulders, and drainage facilities in the state of repair existing at the date of the inspection prescribed in §189.4(f)(1).”

   Excess maintenance is defined as “Maintenance or restoration or both (but not betterment) of a posted highway in excess of normal maintenance caused by use of over-posted-weight vehicles.”

The chart on the next page provides guidance to help determine which category specific maintenance activities fall into.

10. **Execute an Excess Maintenance Agreement Between User and Municipality**

    Once the road is posted and a non-local traffic hauler wants to exceed the posted weight limit, the hauler must enter into an excess maintenance agreement with the municipality and obtain a permit in accordance with the regulations discussed previously. The municipality must then decide the type of agreement/permit, which is generally determined by the anticipated type and extent of excess maintenance resulting from the heavy hauling:

    • **Type 1 or Type 2 permittee**: All permits are local roadway specific.
    • **Type 3 permittee**: An agreement can be processed on a geographic basis, such as county or municipal-wide.

11. **Determine Who Will Perform Road Damage Repairs**

    Once you have decided which type of agreement, then you must decide who performs the required excess maintenance due to the heavy hauling. The following 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.

    The user may request permission for one of the following:

    • Maintain the highway to a level consistent with the existing road type as established at the time of the initial inspection, or
    • Maintain the highway to a level lower than the existing road type, and at the termination of the agreement, restore the highway to a level consistent with the existing road type as established at the time of initial inspection. An example would be if a paved surface is maintained in an unpaved condition during hauling activities and then returned to a paved surface when hauling is terminated.

12. **Encourage Agreement Among Multiple Users**

    The regulations apply to both single and multiple users. In those cases where multiple users exist, the municipality should encourage the users to reach an understanding among themselves for the cost of the damage done by each. Each individual user is required to execute an excess maintenance agreement. By letting the users determine the percentage of responsibilities themselves, problems associated with the preparation of the agreements can be reduced.

    In the event a mutual agreement cannot be reached, the posting authority will determine their relative shares. Contact your PennDOT Municipal Services representative if your municipality needs help resolving the issue.

13. **Obtain Evidence of Public Liability Insurance from User**

    In all cases where workers are on the highway and in those cases where the user or its contractor performs the work, the user
must provide the industry standard certificate of insurance. The coverage must provide for bodily injury and property damage in minimum amounts of $250,000 per person and $1 million per property damage. The certificate of insurance must be incorporated into the excess maintenance agreement as an exhibit.

If the user cannot or will not obtain liability insurance coverage, the municipality may refuse to issue an agreement, or maintenance and restoration may be completed by the municipality and/or its contractor.

14. Obtain Appropriate Legal Signatures from User and Execute Agreement

Once appropriate signatures are obtained and an excess maintenance agreement has been fully executed, the municipality must immediately forward a copy of the agreement to the user. The municipality should maintain each original agreement and all supporting documents during the time the agreement is active and for an additional three years after the agreement is terminated.

THE PERMITTING PROCESS

Next, the steps in the permitting process are addressed.

15. Determine the Necessary Types of Permits

There are three basic types of permits that a municipality can issue for use on posted highways:

- **Type 1 agreements** are used when the hauler requires the use of a posted road and the posting authority anticipates that heavy damage will occur. In this case, the hauler (or user) has control over the heavy hauling vehicles traveling the road. The user must issue a copy of the permit to each vehicle traveling the road.

- **Type 2 agreements** are similar to Type 1 except that the user has no control over the heavy hauling vehicles. Let's say, for example, other companies are involved in hauling the user's raw materials or final product. In this case, the permit must be conspicuously displayed at the user's place of business. A bill of lading, shipping order, or similar document which shows the user's place of business as the destination or departure point serves as proof that the vehicle is covered under the user's Type 2 permit. This posting must be visible to the enforcement agency.

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**NORMAL MAINTENANCE VS. EXCESS MAINTENANCE ON PAVED HIGHWAYS**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>NORMAL MAINTENANCE</th>
<th>EXCESS MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pothole patching</td>
<td>No patching required until 3 years after a roadway has been paved and/or seal coated; otherwise, when needed but not more than once a year. Bridge – as needed for normal traffic.</td>
<td>Pothole or wheel depressed areas after roadway has been scratched and seal coated within a 3 year period; otherwise, when needed. Bridge – as needed based on USER damage.</td>
</tr>
<tr>
<td>Shoulder cutting or grading</td>
<td>3 to 4 year cycle</td>
<td>Anything more often than 3 to 4 year cycle. Shoulder build-up due to USER’s truck running off edge of pavement. Shoulder cutting or grading due to roadway being pushed down.</td>
</tr>
<tr>
<td>Inlet and ditch cleaning / Bridge deck and scupper cleaning</td>
<td>As needed due to gradual sediment. Bridge – each Spring</td>
<td>As needed due to run-off from USER’s approach, shoulder deterioration arising from USER’s trucks running on shoulders, ditches pushed shut by USER’s trucks riding on shoulders. Bridge – as needed for dirt material from USER’s operations.</td>
</tr>
<tr>
<td>Pipe replacement</td>
<td>When pipe wears out (25-30 years).</td>
<td>Pipe crushed or damaged due to USER’s heavy hauling activities.</td>
</tr>
<tr>
<td>Pipe flushing</td>
<td>As needed due to gradual build-up of debris.</td>
<td>As needed due to run-off from USER’s approach, shoulder deterioration arising from USER’s trucks running on shoulders, pipe blocked as result of USER’s trucks riding on shoulders.</td>
</tr>
<tr>
<td>Signing &amp; Delineation</td>
<td>As needed due to routine sign upgrading or replacement.</td>
<td>Weight restriction signing and any signing needed due to roadway condition or hauling activities. NOTE: PennDOT will install the weight restriction signing.</td>
</tr>
<tr>
<td>Line Striping</td>
<td>Once per year for specific roadways.</td>
<td>Line striping needed due to repairs or activities, including any temporary striping or markings needed.</td>
</tr>
<tr>
<td>Snow Removal and Winter Traffic Services</td>
<td>Regular and routine as part of PennDOT’s winter traffic services.</td>
<td>Additional winter traffic services provided by PennDOT to address issues caused by permittee, for example, icy spots due to water spilled on the roadway.</td>
</tr>
<tr>
<td>Guiderail/Barrier Updates</td>
<td>As funding is available</td>
<td>Update required due to USER’s paving, preventative maintenance, damage, or other repairs.</td>
</tr>
<tr>
<td>Guiderail Reset/Bridge Transition</td>
<td>As funding is available</td>
<td>Guiderail adjustment is due to USER’s paving, preventative maintenance, or other repairs, and is suitable for resetting/transiting to bridge.</td>
</tr>
<tr>
<td>Drainage Modifications</td>
<td>Case by case basis.</td>
<td>Any modifications required due to USER’s repair or activities.</td>
</tr>
<tr>
<td>Grading and Shaping *</td>
<td>Spring and Fall. Material to stabilize</td>
<td>Grading and shaping beyond normal maintenance. Bridge – as needed from USER’s activities.</td>
</tr>
<tr>
<td>Dust Palliative *</td>
<td>Once a year (in front of house).</td>
<td>Anything more often than once a year.</td>
</tr>
<tr>
<td>Grading and Shaping / Bridge Approach Settlement **</td>
<td>Not applicable</td>
<td>As needed</td>
</tr>
<tr>
<td>Dust Palliative **</td>
<td>Not applicable</td>
<td>Dust oil the entire length as needed.</td>
</tr>
</tbody>
</table>

* Applies only to stabilized highways.
** Applies only to paved highways that have reverted to stabilized highways. PennDOT’s goal is to totally avoid this situation.
16. Provide a Permit Application Identifying any “Special Conditions and/or Restrictions” to User
The municipality may require special conditions and/or restrictions to be included in the permit application. At a minimum, the user maintenance plan should address the following considerations:

- Results of initial and periodic road inspection surveys. Frequency of periodic surveys should be identified.
- Identification of preliminary maintenance activities to be accomplished prior to the start of hauling operations.
- Establishment of user maintenance responsibilities and priorities.
- Evaluation and agreement of maintenance alternatives for different distress types.
- Establishment and agreement of required response time for non-emergency repairs.
- User point(s) of contact for routine and emergency maintenance repairs. The municipality may find that providing the user with a description of the expected level of maintenance, or standard of care, is useful to clarify the response time, frequency, and acceptable methods to repair the roadway distress.

17. Determine Pavement Types
The determination of the level of maintenance and restoration should be based on the existing and desired roadway surface type. Applicable graphics depicting pavement types should be attached to the permit application. Refer to the Federal Pavement Type Codes.

18. Determine Initial Security Amount
For each type of agreement, regulations specify the amount of initial security that the posting authority is legally allowed to require. The user must then provide this security. Security amounts as established by PA Code, Title 67, Chapter 189, are:

- **Type 1 & 2 permits:**
  - A: $6,000/mile for unpaved roads
  - B: $12,500/mile for paved roads
  - C: $50,000/mile for any highway that the municipality allows to be maintained below a level consistent with type of highway.
- **Type 3 permit:** $10,000 /for each county or municipality covered by the permit.

19. Obtain Appropriate Forms of Security
PennDOT has identified two standard types of security that may be used: “performance bond” and “letter of credit.” Municipalities may also use other security options, such as certified check, cashier’s check, bank account, certificates of deposit, security agreements, escrow agreement, or some other form of security acceptable to the posting authority.

20. Perform Initial Inspection with User
To determine the user’s responsibility once he starts hauling, a preliminary inspection of the posted road is necessary. The inspection should be conducted jointly by the municipality and user; however, the absence of the user must not prevent the inspection from being conducted. Extensive photography and/or preparation of an initial video are recommended. The municipality may recover its costs of the initial inspection from the user(s).

21. Invoice User and Receive Payment for Permit Fees Prior to Issuing Permit
The municipality should adopt a resolution identifying its fee schedule. The following costs may be recovered:

- Municipal administration fees
- Inspection fees
- Video inspection fees
- Local equipment fees
- Property claim fees
- Legal and engineering third-party fees

22. Review User’s Final Permit for Approval
During this quality check, the municipality reviews the permit for completeness and accuracy and returns the permit for correction if necessary.

23. Issue Permit
At this step, the municipality provides the original to the user, maintains a copy for itself, and provides a copy to the enforcement agencies.

**DAMAGE CONTROL**
Once a permit has been issued, the municipality must ensure that any damage to the roadway is repaired as required in the agreement.

24. Complete Interim Inspection/Road Condition Survey
The municipality should perform periodic inspections to determine the extent of any repairs the user is liable for and to ensure the damages do not exceed the amount of surety provided. Less detailed reviews are conducted to identify areas in need of repair. The user may be billed for the actual costs of the inspections.

A good rule to follow in timing the re-inspections is the “75 percent rule.” Never allow the cost for repair of excess damages to exceed 75 percent of the security amount. If the user is unable to maintain or repair the highway, the municipality may request additional security. There is no upper limit for any additional...
security. The security will be returned to the user when the repairs are satisfactorily completed.

25. Provide Road Damage Cost Estimates
The municipality invoices the user for the estimated cost of repairs using the latest maintenance contract prices or the latest average monthly maintenance unit prices. If this information is not available, your PennDOT Municipal Service Representative should be contacted to assist with this step.

26. Invoice User for Interim Inspection Fees and/or Third-Party Fees and Municipal Repair Costs
The user is liable for all costs of excess maintenance and restoration and all other expenses incurred pursuant to the excess maintenance agreement, including but not limited to costs related to inspections, surveys, and administration costs.

27. Repair Road Damage
Necessary repairs are completed either by the user or the municipality as stated in the excess maintenance agreement. If repairs are not commenced by the user within five business days of written notice, the municipality may invoke the remedies stated in the agreement. The appropriate enforcement agency should be notified of any suspensions of the permit.

28. Make Improvements or Obtain Additional Security if Damage Estimates Exceed 75 Percent
Additional security can be requested when estimated damages exceed 75 percent of the security. The amount of additional security may be determined by the municipality or third-party estimates, including local contractors or PennDOT personnel. Failure of the user to provide additional security constitutes a breach of the agreement, and the permit may be revoked.

Once the amount of the additional security has been determined, obtain it from the user as noted in #19 above.

29. Determine Appropriate Remedies
If the user fails to comply with any of the provisions of the agreement, the municipality may:
• Notify the user of noncompliance with the agreement
• Require additional security
• Require a plan to restore compliance with the excess maintenance agreement
• Suspend or revoke the user’s permission to move vehicles
• Elect to take over maintenance of the highway and bill the user
• Proceed against security provided
• Terminate the agreement
• Implement any other remedies allowed by law

WRAPPING UP THE PROCESS
If the user no longer needs to haul heavy loads across your roads, the final steps in the posting and bonding process may be completed.

30. Conduct Final Inspection, and Ensure Damage Repairs Are Complete
Once the user has completed its hauling activity, the municipality should conduct a final inspection to determine the extent of any repairs needed for which the user is liable. During this step, the municipality must ensure repairs have been completed to the satisfaction of the municipality in accordance with the excess maintenance agreement and permit.

31. Release Security to User
When the user supplies written notification that the activity has concluded, all invoices must be paid in full within 45 days before the original security can be released to the user.

32. Notify Enforcement Agencies of Cancellation of Permit
The municipality should notify the enforcement agencies in writing of the cancellation of the permit and the conclusion of hauling activities.

By implementing a posting and bonding program, municipalities are protecting their roads from the damages caused by heavy loads and heavy hauling. Posting and bonding can make sure that any excess damage that does occur is paid for by the heavy haulers who have caused the damage.

Need Help?
Each PennDOT district has a posted highway coordinator. Ask your PennDOT Municipal Services representative to introduce you to your district coordinator, and then use his or her assistance in setting up your road posting and bonding program.

LTAP will provide a half-day training session on Posting and Bonding of Local Roads at a municipal site upon request. The session covers in detail the regulations, security amounts, and inspection procedures. There is no charge for the training. If you want to schedule a training session or if you have questions about the posting and bonding process, call LTAP at (800) FOR-LTAP (367-5827).