

ighway construction is a complicated process that involves many tasks. Some of these, by nature, have an impact on nearby residents. To minimize these impacts, the Pennsylvania Turnpike Commission works closely with contractors, homeowners and businesses while construction is in progress. The PA Turnpike is dedicated to protecting property owners and completing projects in a safe and timely manner.

This brochure describes some temporary inconveniences that may be experienced by property owners in the vicinity of road construction projects. It also provides information on whom to contact if you have any questions or concerns regarding construction.

#### MINIMIZE DISRUPTIONS

The goal of the PA Turnpike and its contractors is to minimize disruptions as part of our construction and safety process. The following disruptions may occur as part of the building process.

#### **BLASTING**

Blasting is an efficient method of breaking rock for highway construction. The process is regulated by the Commonwealth of Pennsylvania and is supervised by licensed personnel. Blasting shortens construction time and reduces long-term disruptions to neighbors.

During the blasting process, explosives are used to fracture the rock. This fracturing occurs no farther than 20 to 30 feet from the blast hole, depending on the size of the rock and the explosives used. More than 90 percent of the energy from the blast is expended in breaking the rock, which is then removed. The remaining energy is absorbed into the ground, creating vibrations and noise that flow from the blast center.

Vibrations are a temporary disturbance associated with blasting and are similar to waves created by a rock thrown into a pond. The speed and force decrease as the waves flow from the blast center. The PA Turnpike usually requires contractors to monitor ground and air vibrations with seismographs to check that the contractor is operating within allowable limits. Property owners adjacent to blasting activities may be asked to allow the placement of a seismograph on the property. Seismographs are typically placed in several locations near the closest buildings.



### **PRE-BLAST SURVEYS**

Property owners within 1,000 feet of the blasting operations are strongly encouraged to participate in a pre-blast survey. The inspection takes approximately one hour for a typical residential home and is conducted at no cost to the owner. The survey records the interior and exterior state and documents the general condition of buildings before blasting. In order to participate in the survey, property owners must allow independent consultants to enter. Although damage from blasting is not anticipated, precautions are taken to protect buildings. Project contractors are dedicated to the safety of residents in construction areas and use the following safety procedures.

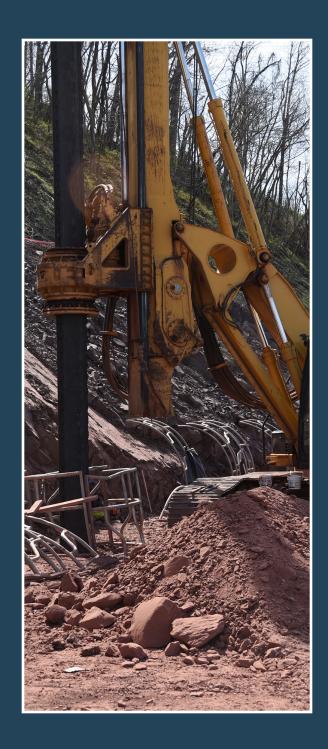
## 1. Blasting Notification

Property owners and institutions both public and private will be notified of actual blasting activities through one or more of the following methods:

- mailing of pre-blast survey letters to residents within 1,000 feet of blasting areas;
- publication of blasting schedules in local newspaper; and
- a series of distinct, audible alarms sounded at scheduled intervals several minutes before the blast to warn everyone in the immediate area.

## 2. Temporary Road Closures

Roads near blasting areas may be closed for safety reasons. These temporary closures, usually lasting only several minutes, ensure the safety of motorists near a blasting area by limiting or preventing their exposure to these areas.





# **DISTURBANCE OF NATURAL WATER SUPPLY**

Displacement or disturbance of natural water supplies is a potential effect of ground removal. The loss or temporary disturbance of your natural water supply may be a result of construction activities. To better evaluate your water supplies prior to construction, independent consultants will sample and analyze water supplies of structures within 1,000 feet of the affected area. These tests are conducted to establish an accurate baseline of water quality and quantity.

# **DUST AND MUD CONTROL**

Dust and mud are side effects of construction. While contractors may not be able to prevent the accumulation of dust, measures such as spraying water within the construction sites are taken to try to contain it within project boundaries. Adjacent roadways are cleaned on an as-needed basis.

### NOISE

Noise goes hand-in-hand with construction. It is virtually impossible to excavate or build without creating sound waves that the human ear hears as noise. Pile-driving, back-up alarms, earth moving equipment and construction are often identified as noise-generators. Pile-driving is a technique used to pound steel columns in the ground to support structures such as bridges. Pile-driving generates a repeating hammer noise and will cause vibrations.

Night construction is necessary because of efficiency and cost considerations. While it may be noisy, it actually reduces inconvenience by significantly cutting the number of days required to complete the job. To minimize the impact of these activities, contractors are directed to keep construction activities within accepted noise levels established by the U.S. Occupational Safety and Health Administration. These allowable noise levels vary depending on the time of day.



# QUESTIONS OR COMMENTS ABOUT CONSTRUCTION?

In order to keep neighbors better informed, representatives of the PA Turnpike and the project construction manager will meet with property owners at the start of construction to address questions about road construction.

The PA Turnpike wants to hear neighbors' questions regarding inconveniences or potential damage to property related to road construction. In order for complaints to be handled properly and efficiently, property owners should contact the project manager immediately.

Once a complaint is reported, an independent consultant will visit the property owner, assess any damage, evaluate the claim and discuss next steps.

# **NEIGHBORS SAFETY**

The safety and protection of neighbors are prime considerations in construction projects. If a neighbor witnesses an issue or notices unauthorized activities within construction areas, they should immediately contact:

Call
717-939-9551
Ask for the Construction Dept.