

The Old Becomes New Through Pavement Recycling Process

As part of the process of rebuilding interstates and other roadways, the old asphalt must be stripped or milled away.

As the asphalt is removed from the road, it is ground up, into what is called millings, and loaded into trucks. The millings are hauled away to stockpiles where temporary piles are created.

Then what?

A typical one-mile stretch of an interstate rehabilitation project can produce more than 3,600 tons of millings. At one time, contractors kept the ground up remains of old roads. Now the northwest region of PennDOT retains the by-product of road deconstruction as part of a reuse system called Recycled Asphalt Pavement or RAP.

The millings are stored in piles based on their roadway of origin. This allows workers at PennDOT's county maintenance facilities to know the details of particular millings within a pile. Millings removed from interstates often have a higher percentage of skid resistance material.

Down the line, the millings can be used to repave roadway shoulders and roads with lower volume of daily traffic.



One lane of this roadway has been milled away in preparation for the placement of Recycled Asphalt Pavement.

But before the millings can hit the road again, they have to be prepped at the stockpile. The millings are ground down by a machine called a crusher. This ensures the RAP millings will have the right consistency when it is mixed with cold oil in the pug mill and loaded into dump trucks.

Once the mixture is complete, the RAP is placed on the roadway in much the same fashion as the hot-mix asphalt that is used on interstates and other busy highways.

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Covered in this issue:

Embedded Tech and Engineering Topics — Pug mill, Millings, RAP

Vocabulary Terms — Asphalt, stockpile

Want to have "Road Trip" sent directly to your email every other month? Submit your email address to jharry@pa.gov and you'll be added to the list.

The newsletter is also available online at www.penndot.gov/RegionalOffices/district-1.

Program offers best use of resources

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The RAP process is just one way PennDOT works to make the best use of its resources and funds. The program not only provides a way to recycling asphalt, it also costs less than traditional paving.



In 2015, the northwest district of PennDOT paved 50.73 roads with RAP, using 74,788 tons of millings.

Studies are underway to expand the RAP program by making the pavement even more durable and available for use on roads with higher amounts of daily traffic.

The RAP program is another opportunity for PennDOT to continue looking for innovative ways to repair the state's roadways and bridges while



Recycled Asphalt Pavement is rolled and smoothed out during a recent repair project in Venango County.

being fiscally responsible and environmentally conscience.

Work Zones Require Drivers to be Cautious, Attentive

PennDOT and its industry partners are busy improving and maintaining nearly 40,000 miles of roadway and 25,000 bridges in its care.

When you encounter a work zone, please keep the following tips in mind for your safety and the safety of highway workers.

- ◆ Drive the posted work-zone speed limit.
- ◆ Stay alert and pay close attention to signs and flaggers.
- ◆ Turn on your headlights if signs instruct you to do so.
- ◆ Maintain a safe distance around vehicles. Don't tailgate.
- ◆ Avoid distractions and give your full attention to the road.
- ◆ Always buckle up.
- ◆ Expect the unexpected.
- ◆ Be patient.



DID YOU KNOW... A standard asphalt roadway will last 15 years. Good maintenance can increase that lifespan to 20 years.

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