PennDOT Maintenance First

Manual patching is most commonly known as pothole patching.

Most permanent pothole patching is completed in the spring when temperatures stay consistently above freezing. Weather permitting, crews patch potholes during the winter using a cold patch.

Cold patch is asphalt mixed with soap, water and fine stones. The soap and water allow the material to remain flexible so crews can work with it. The cold patch material is simply placed into the pothole with a shovel and then compacted. After the soap and water evaporate, the material will become hard. Although this is designed to be a temporary repair, cold patch jobs can last two or more years.

Hot mix is a permanent patch for a pothole which requires a mixture of pure asphalt and fine stone heated to about 300 degrees Fahrenheit. The pothole is cut square, cleaned and then treated with a tack-coat of asphalt that acts as a glue. After the tack-coat application, the hot mix is placed into the pothole and compacted using a roller or other device. If potholes were not repaired, the road surface would break up and require more expensive corrective measures.
PennDOT Maintenance First

Although Pennsylvanians see PennDOT crews on the roads year round, they may not always realize the scope or importance of all of the work we do.

More common maintenance activities such as Manual Patching don’t receive as much public attention as building new bridges or highways, but they are integral to the maintenance of the state’s 40,000 roadway miles and 25,000 bridges.

For more information, or for additional copies of the Maintenance First cards, please contact PennDOT’s Press Office at 717-783-8800 or your local PennDOT District Press Office.

The Maintenance First Series was developed to help educate our customers about our more common maintenance operations.