

SELECTION OF A PATCH METHOD

Cold Mix Asphalt Patch

- Cold mix asphalt patch should only be used for temporary fixes in small to medium potholes. The material is not designed to be structurally sound for depths beyond 2 inches. If this cannot be avoided, the patch should be placed in 2 lifts and compacted separately.

Mix & Fill with Virgin HMA

- Virgin hot mix asphalt (HMA) during the regular season is the most acceptable option for filling milled areas. This option can be used in any situation, mill and fill or established potholes. HMA works for any depth repair; however, when the patch depth exceeds four inches, multiple lifts should be considered, with compaction taking place after each lift.

Advanced/Proprietary Materials

- Several advanced rapid set materials are available for employment at sites that require short reopening times. Compaction of these materials may not be necessary as they are cementitious in nature.

Mastic

- Mastic, although expensive, is the best option for repairing low-depth (less than 2 inches) longitudinal joints. As long as the patch area is dry to begin with, the mastic seems to not be affected by future moisture infiltration. As with any maintenance operation, quality control of the work being performed is paramount. The proper amount of patching material leads to better compaction and longer-lasting patches.

POTHOLE PREPARATION

Minimum required cleaning method

- Sweeping: A crew member uses a steel brush to sweep out a pothole, removing dirt, debris, and any standing water. This method removes large particles from the hole, but does not necessarily remove fine materials.

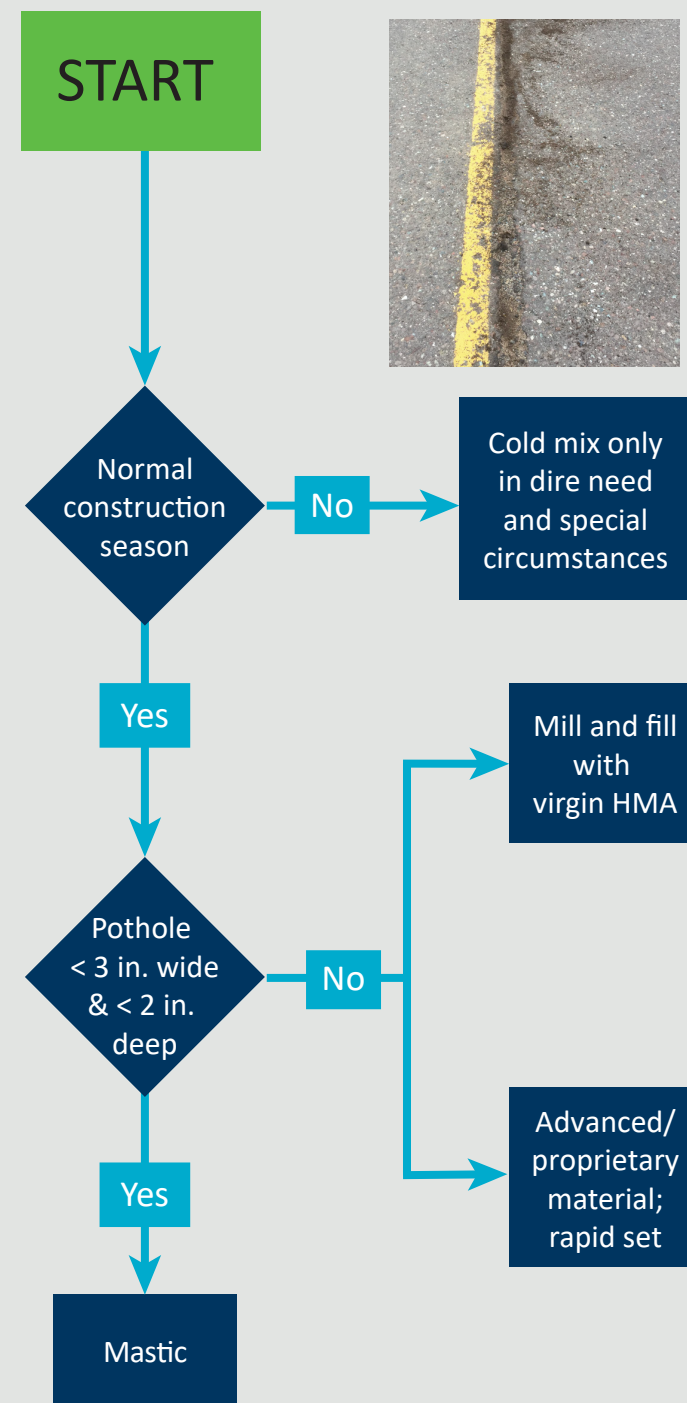
Recommended cleaning method

- Compressed air: A hose attached to an air compressor is used to remove dirt, debris, and any standing water. This method removes both fine and large particles, as well as helps dry the pothole surface. Eye protection is required.

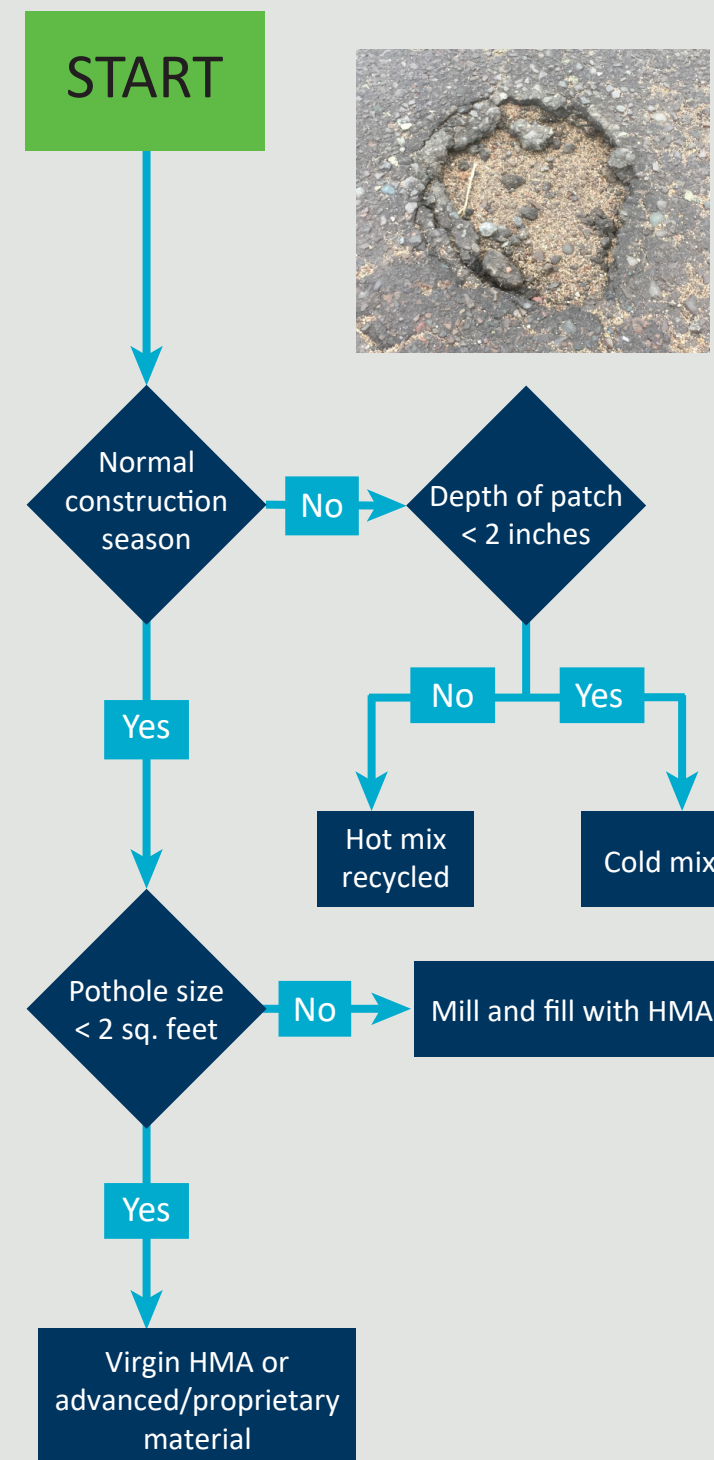
Milling operations

- The standard methods for milling both longitudinal joint distress and localized potholes are acceptable. There must be adherence to the guidelines for cleaning the patch area prior to placement of the patching material.

POTHOLE AT LONGITUDINAL JOINTS



LOCALIZED POTHOLE



PLACEMENT AND COMPACTION

HMA patches

- Complete coverage of the patch area with an approved tack material is recommended.
- When the HMA delivery vehicle drives directly in the milled area, debris from the tires covers the tack material, rendering it non-functional. This should be avoided, if at all possible.
- Compaction should be as thorough as possible to ensure patch longevity. Vibratory steel rollers should be employed to achieve this.

Mastic

- Standard mastic operations are sufficient.
- The material is moderately self-leveling and requires no compaction.

Cold mix patching material

- Manual placement with shovels is the preferred method.
- Deeper patches require the use of multiple lifts with compaction occurring after each lift.

MOISTURE ABATEMENT

HMA patches

- Once the area is dry, a liberal amount of sealant or tack should be applied to keep infiltrating moisture out of the patch contact point.

Mastic

- Mastic itself has a sealing quality that is moisture-resistant.

Cold mix patching material

- This method is generally used during the off-season, which normally means less moisture. Since this is a temporary solution, the abatement of moisture is of less concern.