



## Maximizing the Use of **LOCAL MATERIALS**

Local polish-susceptible aggregates can be used to replace a portion of high-quality friction aggregates in HMA and SMA surface mixtures without detrimental effects on friction. Replacing some of the premium materials with locally available aggregates will help to reduce costs while maintaining safety. The laboratory evaluation procedures used in the 2012 study have been implemented as a screening test for new materials or new types of mixtures. Such a screening test allows contractors, material suppliers and INDOT to ascertain whether a material warrants further investigation before the effort and funds are invested in construction of a field trial.

**20%**  
ALLOWABLE THRESHOLD  
**COARSE & FINE  
AGGREGATE**

**REDUCTION  
of COSTS  
MATERIALS  
HAULING  
ENERGY**

Research references SPR-3308:

“Maximizing the Use of Local Materials in HMA Surfaces”

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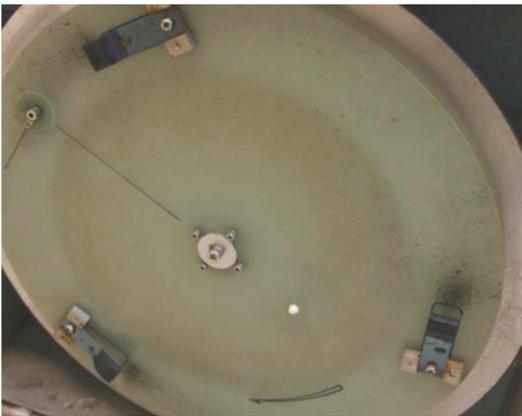
# Laboratory Evaluation

The circular track meter (CTM) and dynamic friction tester (DFT) are devices used to evaluate the surface texture and frictional properties of the different mixes with varying amounts of local materials (i.e., marginal frictional quality materials).



**ABOVE** Left: CTM, which uses a laser to measure surface texture; Right: The polisher is used to simulate the polishing effects of traffic to estimate how the mixtures' frictional properties would change upon exposure to traffic

**BELOW** Left: Underside of DFT with three rubber sliders that move over the surface while measuring friction. They are made of tire rubber replicating a car tire; Right: DFT



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