### Evaluation of Cold In-Place Recycling for Rehabilitation of Transverse Cracking on US 412

The objectives of this study were to evaluate the effectiveness of CIR with slurry crack injection to rehabilitate transverse cracked HMA pavements on two rehabilitation projects on US 412 in Beaver and Harper counties, to investigate the dynamic modulus properties of CIR mixtures, and to evaluate the appropriateness of the M-EPDG predictive equation for dynamic modulus for CIR mixtures.

The CIR treatments have reduced the occurrence of transverse cracking but longitudinal wheel path cracking is occurring in the CIR test sections. The longitudinal cracking might be attributed to the thin, stiff HMA layer placed over the softer CIR layer. AASHTO TP 62 can be used to determine dynamic modulus of CIR mixtures with slight modification. The predictive dynamic modulus equations give good agreement with measured values at the three higher test temperatures if the aggregate properties are based on the RAP gradation and binder properties on the base binder in the asphalt emulsion.

### Key Words
CIR, Dynamic Modulus Mechanistic Pavement Design

### Distribution Statement
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