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16. Abstract

The members of the Iowa Concrete Paving Association, the National Concrete Pavement Technology Center Research Committee, and the Iowa Highway Research Board commissioned a study to examine alternative ways of developing transverse joints in portland cement concrete pavements. The present study investigated six separate variations of vertical metal strips placed above and below the dowels in conventional baskets. In addition, the study investigated existing patented assemblies and a new assembly developed in Spain and used in Australia. The metal assemblies were placed in a new pavement and allowed to stay in place for 30 days before the Iowa Department of Transportation staff terminated the test by directing the contractor to saw and seal the joints. This report describes the design, construction, testing, and conclusions of the project.

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