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Investigation of innovative techniques for measuring roundabout parameters

Roundabouts are an emerging and viable traffic engineering technique in the United States in order to ensure safety and efficiency in surface transportation. As roundabouts become as popular in the U.S. as in other parts of the world, it is important to develop techniques to measure traffic parameters such as vehicle maneuver tracking and the derivation of origin and destination turning movements for roundabouts. Using Portable Overhead Surveillance Trailers (POST) coupled with advanced video analysis techniques such as AutoScope, a computer algorithm based on a time series model of vehicle movements is being developed to track vehicles. This automation will eliminate the time consuming process of manually counting the vehicles from each movement. Video detection of this nature for roundabouts is a new and exciting technology that can change the field of transportation.