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Advancing New Technology

BLUETOAD TECHNOLOGY AND GOOGLE TRAFFIC MAPS FOR CONGESTION MANAGEMENT

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The presentation introduces BlueTOAD traffic monitoring technology as a tool for collecting and processing traffic data to analyze live and historical travel times and speeds over road segments. BlueTOAD (Bluetooth Travel-time Origination And Destination) devices detect anonymous MAC (Media Access Control) addresses and wireless identifications such as phones that connect Bluetooth technologies on mobile devices in vehicles. The system calculates travel time along a corridor through analysis of subsequent detections. It documents all live traffic data that may be used for historical, present and future analysis and research. The presentation addresses the BlueTOAD technology applications and the benefits of its use in the Lexington (KY) area. It demonstrates how the analysis and comparison of travel time index, buffer time index and planning time index are used for travel-time reliability reporting.

The presentation addresses using live and typical Google Traffic maps to measure real-time and historical traffic congestion, and documenting congestion during traffic incidents/bad weather/special events and annual congestion trends in the Lexington Metropolitan Planning Organization Area. The presentation defines congestion and discusses causes of congestion and congestion management processes. Travel time index is used to identify the worst AM and PM peaks in a week and worst congested month in a year. Google Traffic map congestion colors are used to define relative traffic congestion index and identify relative road segment congestion levels. Examples are given to document road segment congestion levels by using relative traffic congestion index and plans are being developed to document congestion trends annually.