Do Roundabouts Work? An Evaluation for Uniform Approach Demands

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Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Master of Science
In
Civil Engineering

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Copyright 2011
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Factor 2

Your consideration of the nature of the copyrighted work you used weighs: in favor of fair use

Factor 3

Your consideration of the amount and substantiality of your use of the copyrighted work weighs: in favor of fair use

Factor 4

Your consideration of the effect or potential effect on the market after your use of the copyrighted work weighs: against fair use

Based on the information you provided, your use of the copyrighted work weighs: in favor of fair use
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Description of item under review for fair use: Figure 2 1: Critical gap and follow-up gap times from different sources

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Factor 2

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Factor 3

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Description of item under review for fair use: Figure 2 2: qualitative measures of effectiveness from Kansas Source: Russell, E. R., M. Rys, et al., 2000


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Description of item under review for fair use: Figure Error! No text of specified style in document.-1: parameters used in SIDRA emissions model  Source: Akcelik R and M. Besley, 2003


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**Factor 1**

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Factor 2
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Factor 3
Your consideration of the amount and substantiality of your use of the copyrighted work weighs: \textit{in favor of fair use}

Factor 4
Your consideration of the effect or potential effect on the market after your use of the copyrighted work weighs: \textit{against fair use}

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Description of item under review for fair use: Figure Error! No text of specified style in document. -2: Percent improvement using a roundabout over a All-way stop controlled intersection Source: Vlahos, E., A. Polus, et al 2008

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Factor 1
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Factor 3

Your consideration of the amount and substantiality of your use of the copyrighted work weighs: *in favor of fair use*

Factor 4

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**Based on the information you provided, your use of the copyrighted work weighs:*in favor of fair use*

Description of item under review for fair use Figure *Error! No text of specified style in document.*-3: Maximum Demand for a roundabout when compared to a signal  Vlahos, E., A. Polus, et al. 2008

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