Document Summary

RECURRING TRAFFIC BOTTLENECKS: A PRIMER

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Summary of the Work

The Primer is a key resource for Federal Highway Administration's Localized Bottleneck Reduction (LBR) Program, providing a virtual forum for peer exchange between members of the transportation community interested in alleviating bottleneck congestion. The LBR program, initiated in 2007, is designed to expand the portfolio of bottleneck reduction tools available to transportation agencies to encompass innovative, readily adopted strategies for reducing congestion at bottleneck locations.

This primer Includes high-level documentation and statistics on increasing congestion on U.S. highways. It identifies increases in travel time and delay along with economic impacts of these delays to both commuters and the commercial vehicle sector. The 2005 Urban Mobility reported $63 billion lost in travel time delays and wasted fuel equal to 0.6% of GDP. In 20 years, it is projected to rise to 1.6% of GDP. Social impacts and a higher general level of stress associated with congestion are also noted. The primer defines various types of bottlenecks, describing their characteristics and using examples to illustrate them. Information is provided on the causes of bottlenecks and their impacts and describes FHWA's initiatives to address them. The latter part of the primer focuses on potential solutions and matches them to various types of bottlenecks. Finally, the Primer includes examples of successful mitigation by State DOT's. The Primer is designed to provide State, regional and local officials with an understanding of bottlenecks and potential solutions. The Primer emphasizes that low-cost quick-response solutions are available to most of these problems.

Applied to Practice

The Primer can be highly useful in educating transportation practitioners about bottleneck relief and is also a useful tool in educating local appointed and elected officials who do not have a transportation background. It is very effective in communicating technical information to a wide audience. In an era where most agencies are trying to stretch scarce resources, the recommendations and ideas included could allow more projects to be deployed. It will also help practitioners explain the rationale for proposed projects and their likely impacts on the system.

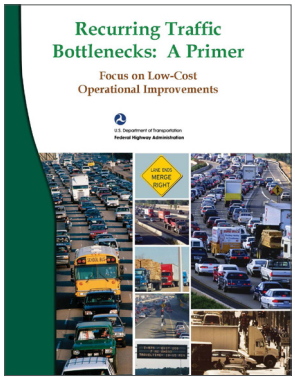
One of the major benefits of the documents is the list of real-world examples. These not only provide tangible evidence of success but a list of agencies that interested parties can contact for further information.

Related Work

In 2006, as part of the research conducted for National Cooperative Highway Research Program Project 3-83 ("Low-Cost Improvements for Recurring Freeway Bottlenecks"), a series of interviews with state and local transportation personnel occurred. Interviewed representatives were asked to name the low-cost improvements that their agencies have used at bottleneck locations in their jurisdictions. This helped to provide the examples in the Primer and develop the key questions are provided in the Primer for transportation professionals to use in evaluating bottleneck solutions.

Project Website

http://www.ops.fhwa.dot.gov/publications/fhwahop12012/index.htm



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