

## Increasing road capacity by emergency laws “Broadening of the roads”

**Edwin SCHUILING**  
Project Manager  
ARCADIS Netherlands  
Amersfoort, The Netherlands  
*Edwin.Schuiling@arcadis.nl*



Edwin Schuiling, born 1963, received his civil engineering degree from the Technical University Delft, The Netherlands. He worked for several engineering companies in The Netherlands, before becoming senior project manager within the division “Infrastructure” at ARCADIS Netherlands

### Summary

Because of the large traffic-jam problem in the Netherlands the road capacity had to be increased on a lot of motorways. In the last decade the Dutch Ministry of Public Works started the ZSM program (Dutch abbreviation for Visible, Smart, and Measurable) as a part of the widening of main national highways. In this program, for the most routes of the traffic jam top 50, it was investigated if the road capacity can be increased fast by creating rush-hour lanes on hard-shoulders.

As the road capacity increases, the traffic volume increases too. Therefore regulations on allowable noise and air pollution are observed and measures such as sound barriers and a noise reducing asphalt layer have to be taken. The widening of the highways on structures leads to an increase in loading with regard to the original design. Therefore many existing structures in these motorways are in-depth structural assessed in the ZSM program.

In the paper the processes and issues around these projects are presented.

**Keywords:** Assessment of current structures, design codes, specifications, D&C contracting.

### 1. Introduction

The Dutch Ministry of Public Works (“Rijkswaterstaat”) will take action into solve the most persistent traffic bottlenecks in the Dutch highway system. This means that for 30 infrastructural projects around the country, works on improvement of the road capacity will commence before May 2011. Ten other projects will finish before this date. In all cases, the projects concern widening of the highways with one or two extra carriageways. The accelerated procedure of these bottlenecks has been made possible, because as well as the decision-making as well as the execution of these 30 projects has been speed up.

Since January 2009, a special law (Speeding of Decision-making of infrastructural projects) is in force. This law means a quicker decision-making to adapt highways or to increase the road-capacity. For these projects, there has been a focus of the effect of one solution of the mobility status. Off course the chosen solution has to full fill the legal environment-regulations. For these projects, the report for the effects on the environment has been simplified. Besides that, the environmental research takes less time because the research area and the research methods have been identified explicitly.

Because of the faster decision-making, the projects can be completed earlier than normally. The contractor who will execute all the works in relation to a certain infrastructural project, will be chosen on the basis of an official tender. Normally, this takes a long time. By approaching the market already during the stage of decision-making, the tenders of the infrastructural projects can be finished earlier than normal, and so the start of the execution of the works can start earlier. By doing this, the projects can commence earlier.

In this paper, 3 of the 30 infrastructural projects are attended to the matter. These projects are : Highway A12, between the junctions “Waterberg” and “Velperbroek”, near the city of Arnhem,