



40 Years Intelligent Transport Systems Experience

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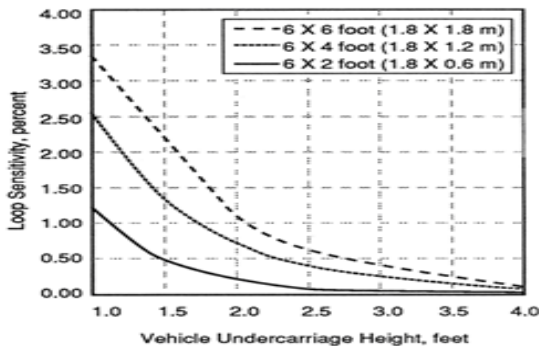
Dear Grant

Thank you for forwarding the results from the report related to the Northern Connector in Adelaide where the preformed loops were installed at a depth of 270mm – considered by some to be too deep and to potentially fail.

The basis of my argument suggesting that loops would work satisfactorily is derived from the graph below. Extrapolating the results from trucks to normal vehicles (in respect to height above road surface) indicates a reasonable margin in accommodating the additional loop depth. This is also improved as you can see by using loops with a broader 2 dimensional area and as we discussed additional turns increases the ‘Q’ of the loop.

When pushing any technology to its limits other factors effect performance and in this case road construction material, restricted use of steel rebar and the quality of the installation were favourable to this outcome.. The final factor is of course the sensitivity of the vehicle loop detector which when operating in a highly sensitive mode must not be compromised by vehicles travelling in adjoining lanes coupling energy and inducing crosstalk..

Fig 1-B



Courtesy of US Federal Highways Authority

A good result for all concerned.

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