TMH 24 – SOUTH AFRICAN ROAD RESTRAINT SYSTEM MANUAL: IMPLEMENTATION OF THE RISK ASSESSMENT PROCEDURE FOR SOUTH AFRICA (RAPSA)

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ABSTRACT

The Safe System Approach (SSA) encourages road authorities and designers of the road traffic system to provide safer roads and road environments. At its core, the, SSA advocates for the need to constrain accident forces within the level of human tolerance, which necessitates the management of speed, where speed too high for circumstances leads to more severe injuries and fatalities. In addition, the SSA advocates the need to adopt the viewpoint that roads or roadsides should be "*forgiving*".

Technical Methods for Highways (TMH) 24 - the South African Road Restraint Systems Manual (SARRSM 2022) compiled under the auspices of the Committee of Transport Officials (COTO) is part of the South African Road Safety Manual (SARSM) series of documents that have been developed to assess or audit road safety conditions, identify areas that require improvement and provide guidance to improve road safety on the South African road network, including the installation of road restraint systems (RRS). TMH 24 or SARRSM 2022 provides for a uniform approach to the assessment, evaluation, prioritisation, and design of road restraint systems across all road networks. The aim of RRS is to contain and redirect errant vehicles to avoid injury to occupants and reduce the damage to vehicles and infrastructure. RRS form a vital part of the road planning and design process and requires detailed knowledge of civil, transportation and traffic engineering, and road safety principles.

The Risk Assessment Procedure for South Africa (RAPSA) refers to the technical guideline that assists road authorities and practitioners responsible for the planning and design of roads to assess roadside safety. The ESSF 2023 workshop entails:

- Background to the RAPSA Process Associated with (pre-) Draft TMH24.
- RAPSA context and motivation for use (not guardrails as usual).
- Case Study: N10 Paterson to Olifantskop Pass.
- Practical application and use of RAPSA methodology.

The purpose of the last of the afternoon's proceedings is to offer industry practitioners a brief guide to and hold an interactive session with participants so that they can get a sense of the practical value of the RAPSA tool. Participants will require a laptop PC and Microsoft Excel. Each will be asked to input relevant parameters on a given segment of road to appreciate the workings of the tool and how the outcome may be interpreted.

It is envisaged that closer attention will be paid to the specification of road restraint systems by appreciating the cost of run-off-road crashes to the economy, and the value that the Safe System Approach can add to our road network.