

## ELEMENTS OF ROAD SAFETY ENGINEERING

### *A 4-day technical training workshop for making safer roads*

#### **PROGRAM**

##### **WORKSHOP OBJECTIVES:**

- 1) *To introduce professionals from national highway authorities, provincial road agencies, national Traffic Police, consultants, NGO's and others, to the key elements of the road safety engineering profession.*
- 2) *To provide guidance, advice and knowledge to assist road authorities in CAREC countries to provide safer roads for all.*

##### **PROGRAM OUTLINE:**

The workshop will focus on Pillar Two in the UN Decade of Action for Road Safety – Safer Roads. The workshop will follow the recently published CAREC Road Safety Engineering manuals (3 volumes - 2018). It will focus particularly on the two main road safety engineering processes:

- The reactive process of blackspot investigations. The workshop will show how “high crash frequency” locations can be investigated and treated with low cost countermeasures. The importance of access to good crash data will be emphasised.
- The proactive process of road safety audit. The workshop will show engineers how they can prevent crashes on new roads by applying the road safety audit process during the planning, design and construction of new road projects.
- The workshop will be interactive; questions will be encouraged. Many international examples will be shown. Site visits/ practical exercises will feature in the workshop.

<b>Day 1 ROAD SAFETY ENGINEERING</b>		
0900	Welcome – outlining the objectives of the workshop. Setting the scene, including introduction of participants.	National highway authority official
0930	Road Safety Engineering – the Essentials. Detailing what engineers can do to reduce road trauma. The extent of the global and national road safety problem, and emphasising “the road” in road safety.	Phillip Jordan
1030	<b>BREAK</b>	
1045	<a href="#">Technical knowledge for road safety engineers and auditors</a> - Roadside hazard management – fundamentals to keep in mind during an audit or when treating a run-off-road problem. Understanding the clear zone concept and the 5-part roadside hazard management strategy.	Phillip Jordan
1230	<b>LUNCH</b>	
1330	<a href="#">Technical knowledge for road safety engineers and auditors</a> - Signs, lines and delineation.	Phillip Jordan
1500	<b>BREAK</b>	

1515	Technical knowledge for auditors - Pedestrian safety. Remembering safety for the largest group of road users.	Phillip Jordan
1630	Workshop close - Day 1	National highway authority official

<b>Day 2 INVESTIGATING BLACKSPOTS</b>		
0900	Review of Day 1 – comments, questions, discussions.	Participants
0910	Investigating “high crash frequency” sites – taking crash data and turning it into useful information to assist with crash investigations. How to find crash patterns by using collision diagrams and crash factor grids.	Phillip Jordan
1030	<b>BREAK</b>	
1045	Recent examples of treating hazardous locations. This session will include several case studies for participants (using photographs and local crash data) to practise their blackspot investigations.	Phillip Jordan
1200	<b>LUNCH</b>	
1300	Travel to inspect local “blackspots”, investigate possible reasons for the crashes, and develop practical countermeasures.	All participants
1500	Return to the workshop venue and work in teams to prepare a short presentation of the key findings and recommendations.	All participants
1530	Case study presentations of blackspots by each team – 10 minutes each.	All participants
1630	Workshop close - Day 2	National highway authority official

<b>Day 3 ROAD SAFETY AUDIT</b>		
0900	Review of Day 2 – comments, questions, discussions.	Participants
0910	Introduction to Road Safety Audit – how, what, when, where, why.	Phillip Jordan
1030	<b>BREAK</b>	
1045	A short video outlining the RSA process.	Video
1100	A “desktop” audit (drawings required). Participants will examine a set of drawings, “audit” them ( <u>without</u> a site inspection) and will report their 2 or 3 main safety concerns to their colleagues.	All participants
1230	<b>LUNCH</b>	
1330	<a href="#">Technical knowledge for road safety engineers and auditors</a> – road safety at road works.	Phillip Jordan
1500	<b>BREAK</b>	
1515	<a href="#">Technical knowledge for road safety engineers and auditors</a> – principles of safe intersection design and control.	Phillip Jordan
1630	Workshop close - Day 3	National highway authority official

<b>Day 4 ROAD SAFETY AUDIT</b>		
0900	Review of Day 3 – comments, questions, discussions.	Participants
0910	Road safety audit case study. The session begins with a safety briefing and a description of the project(s). Participants are placed into teams of 3-4 before undertaking their audit inspection of the site by bus.	Participants in teams
1200	Return to workshop; begin preparing team RSA reports over lunch.	Participants
	<b>LUNCH</b>	
1330	Case study presentations by each team – 10 minutes each.	All participants
1515	<b>BREAK</b>	

1530	Managing the audit process – a national RSA policy, accreditation of auditors, ToR's for audits, what to do with an audit report. Opportunities for discussions, local ideas and inputs from all participants.	Phillip Jordan, and inputs from all participants
1600	Workshop summary	National highway authority official Phillip Jordan

**SPEAKER:**

Phillip Jordan will present the workshop. He is an experienced road safety engineer and workshop presenter from Australia, with a Master's degree in Engineering Science plus many years' experience in road safety engineering in the public and private sectors. Phillip has worked in most parts of Central Asia, the Caucasus, Middle East, and SE Asia, as well as Australia, Canada, Britain and the USA.

**NOTE:**

- Simultaneous translation from English will be available throughout the workshop.
- Participants are requested to bring safety vests (if possible) and suitable clothing for use during the case study inspections (scheduled for the second and fourth days).
- Questions will be welcomed at any time during any presentation. The workshop will be interactive, and participants will be encouraged to ask/answer questions and to make comments and inputs as they wish.
- Soft copies of the three CAREC Road Safety Engineering manuals (2018) will be available for participants (in English and Russian).