

Content Date:
11 May – 25 May

Live Q&A:
26 May – 3.00pm

BEST PRACTICE GUIDES
**UNSEALED
WORKSHOP**

OUTLINE OF COURSE

Module 1 - Managing Unsealed Roads

This module will provide a comprehensive overview of the key aspects related to the management of unsealed roads from a strategic viewpoint. It will emphasise the phases of setting objectives, defining strategies, developing and implementing works programs and audit and review. Case studies will be used as illustrative examples of Life cycle costing, short- and long-term solutions and when to seal a road.

Module 2 - Unsealed Road Safety and Design

The module will provide an overview of safety considerations in the planning and design stages of a road project, and an introduction to some of the geometric design criteria that are specific to unsealed roads. Topics include crashes on unsealed roads and network level risk assessments, and how the key design parameters vary across unsealed road classes.

Module 3 - Pavement Design, Drainage & Construction

This module will provide a comprehensive overview of the key aspects related to the design and construction of unsealed road pavements. The pavement design component will cover subgrade evaluation, design traffic estimation, material selection and structural design. Important drainage considerations will also be discussed, followed by some important construction considerations.

Module 4 - Maintaining and Operating Unsealed Roads

This module will provide a comprehensive overview of the maintenance and operation of unsealed road including ongoing maintenance, road defects and maintenance options, low cost safety improvement measure and signs and delineation. Case studies will be used as illustrative examples of maintenance and rehabilitation guidance, including identifying defects and selecting treatments.

Module 5 – Construction and Environmental Management

Australia's unsealed roads network is well established and there is an increased focus on ongoing maintenance. However, new unsealed roads continue to be constructed and this module provides an overview of the key elements related to road construction with a focus on unsealed roads. This module also provides guidance on important environmental considerations when designing, constructing and operating unsealed roads.

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WORKSHOP INFORMATION

The Unsealed Roads Best Practice Guide was first published in May 2020 and captures current best practice in managing unsealed roads. The Guide is targeted at local governments (and other organisations) that are tasked with designing, constructing, and maintaining unsealed roads in Australia.

This e-workshop will provide participants with a comprehensive overview of the Guide, as well as practical training on the interpretation and application of the various elements covered in the Guide, including road safety and design, construction and maintenance, as well as managing and operating an unsealed road network.

Each module will be presented by a resident ARRB specialist and will include both technical background information and practical case studies.

WHO SHOULD ATTEND?

The e-workshop is primarily aimed at, but not limited to:

- Junior engineers
- Field staff
- Design and asset management engineers
- Contractors responsible for the design, construction, and operation of unsealed roads.

The workshop is also a useful refresher course for more senior practitioners regarding current best practice.

LEARNING OUTCOMES

On completion of the e-workshop, participants will

- Have a good appreciation of the various elements covered in this Guide.
- Knowledge of its technical background..
- An understanding of how the Guide can be applied in practice to manage unsealed roads in a cost-effective manner.

PRESENTERS

(CONTINUED ON NEXT PAGE)

ARRB



TIM MARTIN - MODULE 1

NATIONAL DISCIPLINE LEADER PAVEMENT PERFORMANCE MODELLING, ROAD ASSET PERFORMANCE

Dr. Tim Martin has over 40 years of industry experience, and prior to joining ARRB in 1990, Tim spent 17 years in the investigation, planning, design, contract management and economic evaluation of major Australian and international civil infrastructure projects.

At ARRB, Tim has been involved in long-term pavement performance and maintenance studies, pavement life cycle cost analyses, and residual risk model development as an aid for decision making in fund allocation across asset classes. His research at ARRB has led to the development of pavement deterioration and works effects models for arterial roads, as well as deterioration models for unsealed and sealed local roads, which are used in pavement life-cycle costing analyses as part of Pavement Management Systems (PMS), the estimation of marginal road wear costs, and as the basis of a refined road track cost allocation matrix.



MADELEINE BEKAVAC - MODULE 2

PRINCIPAL PROFESSIONAL, TRANSPORT SAFETY

Madeleine is a civil engineer with over 15 years experience in both State and Local Government and is currently the South Australian Transport Safety Team Leader for ARRB.

Prior to joining ARRB, Madeleine's previous roles were with the Department of Planning, Transport and Infrastructure (DPTI) in traffic management, transport planning and road safety before she took on the role of managing the infrastructure assets team at the City of Adelaide.

She is currently managing the updates to a number of the Austroads Guide to Road Design Parts, as well as delivering projects for the Federal Office of Road Safety, contributing to ARRB's National Best Practice Guide to Road Safety and overseeing South Australian road data collection and bridge auditing projects for state and local government.

PRESENTERS



DAVID MILLING - MODULE 2

PRINCIPAL PROFESSIONAL, TRANSPORT SAFETY

David joined ARRB in 2008 with a background in road construction and design. He specialises in road safety auditing, safe system road design, crash investigations, motorcycle safety, heavy vehicle access safety and network safety analysis. David has led or been involved in a number of Austroads projects and has presented nationally and internationally on road safety engineering principles. He currently has a special interest in motorcycle safety and infrastructure management to reduce motorcycle casualties.



JOE GROBLER - MODULE 3 & 5

PRINCIPAL PROFESSIONAL LEADER AT ARRB

Joe is a specialist pavement engineer and Principal Professional Leader at ARRB.

His experience includes initial and detailed pavement assessments, material investigations, mechanistic modelling, detailed design, material specifications, and construction phase services.

Joe was also the Project Leader for the development of the new Unsealed Roads Best Practice Guide recently published by ARRB.



TYRONE TOOLE - MODULE 1

CHIEF TECHNOLOGY LEADER ROAD ASSET PERFORMANCE

Tyrone is a Chief Technology Leader in Asset Management at ARRB. He has over 40 years' experience in research and advice on highway engineering and management, planning and in institutional development, working throughout Africa, Asia, and Australasia. His career began at the UK Transport Research Laboratory's Overseas Unit where he made substantial contributions on the topic of this workshop, including through research studies and the development of guidelines on road design and materials and road management.

Tyrone joined ARRB in 2001 working in some of national, state and territory and local government agencies. He has authored guides and reports over a diverse range of topics including asset management and road performance modelling, the Safe System, investment planning, heavy vehicle impacts and fit-for-purpose use of available road building materials.



LORY NOYA - MODULE 4

PRINCIPAL PROFESSIONAL, ASSET MANAGEMENT

Lory has worked with ARRB in several different capacities since 2000. His early work at ARRB was in Jakarta as a highway engineer for World Bank and AusAID projects. In Australia, he has been involved in the project delivery and management of various research and consultancy projects with scope including maintenance strategy, asset management plan review, pavement practice review, unsealed road management for LGA, deterioration modelling, unbound pavement material, long term pavement performance and pavement management system.

As a principal engineer he leads the business development team for ARRB's Road Asset Performance work group while also providing technical input to projects.