



Geometric Road Design & Intersection Design Seminar

2009 Austroads guides - the structure & content
What has changed and why?



Toowoomba QLD 10 – 11 February 2010

On 1st July 2009 Austroads formally launched an extensive range of guides relating to the planning, design, management and safety of roads. Road agencies across Australasia have agreed to adopt the Austroads guides as their main design reference, which is a positive step towards further consistency in the planning, design and management of roads in Australia and New Zealand.

ARRB Group, on behalf of Austroads is pleased to offer a two day seminar on several of the new Austroads design guides relating to the geometric design of roads and intersections. Additional seminars will be offered in Queensland in 2010.

Course outline

The course will provide road designers and other practitioners with an appreciation of the content of the following Austroads guides in terms of their structure and content, changes in design methods and parameters from previous guides and background information relating to the changes.

Guide to Road Design:

- Part 1 – Introduction
- Part 2 – Design Considerations
- Part 3 – Geometric Design
- Part 4 – Intersections and Crossings General
- Part 4A – Unsignalised and Signalised Intersections
- Part 4B – Roundabouts
- Part 4C – Interchanges

Guide to Traffic Management Part 6 – Intersections, Interchanges and Crossings

Seminar purpose *

- To familiarise practitioners with the new Austroads guides relating to the geometric design of roads and intersections which represent current best practice
- To advise road designers and other practitioners of changes in practice that have been introduced in the new guides and explain the background to those changes.

* This course will step participants through the new guides and facilitate understanding and discussion concerning new material contained in them. It does not and is not intended to provide training in the geometric design of roads and intersections.

Course enquiries:

training@arrb.com.au Ph: (03) 9881 1555

www.arrb.com.au/workshops

This course is endorsed by:

Institution of Engineers, Australia (IEAust): These courses are recognised by ENGINEERS AUSTRALIA for Continuing Professional Development (CPD) purposes.



Australian Local Government Association (ALGA)



Australian Institute of Traffic Planning and Management Inc (AITPM)

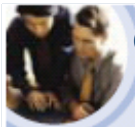


AUSTRALIAN INSTITUTE OF TRAFFIC PLANNING AND MANAGEMENT INCORPORATED

This course is supported by:

Institute of Transportation Engineers ANZ Section (ITEANZ)





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Who should attend:

The seminar is appropriate for practitioners engaged in the development and detailed design of road alignments and cross-sections, and in the development of functional layouts or detailed design of at-grade intersections and interchanges. In particular, it is recommended for road designers and traffic engineers.

The presenters:

Gary Veith – ARRB Group

Gary is author or co-author of the Austroads Guide to Road Design Parts 1, 2, 4, 4A, 4B and 4C and a co-author of the Guide to Traffic Management Part 6. Gary is a Principal Engineer with ARRB Group joining the company after a long career with VicRoads. He has extensive experience in traffic engineering, functional design of intersections and interchanges and in the preparation of engineering policy, guidelines and standards.

Dr Owen Arndt – Queensland Department of Transport and Main Roads

Owen holds the position of Principal Advisor (Road Design Standards) within the Queensland Department of Transport and Main Roads. He has extensive experience in the planning and design of urban and rural roadways, motorways, intersections and interchanges. His experience also covers the management of road and noise barrier construction projects. His current responsibilities include developing and updating road design standards, undertaking of research projects, providing peer review of major projects and delivering training in road design. Owen is the Queensland representative on the Austroads Road Design Review Panel.

Other parts of the Guide to Road Design

The following parts of the Guide to Road Design are not included in this seminar but will be covered in other ARRB courses.

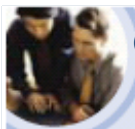
| | | |
|---------|---------------------------------------|---|
| Part 5 | Drainage Design | 2010/2011 – Dates to be advised |
| Part 6 | Roadside Design, Safety and Barriers | 2010/2011 – Dates to be advised |
| Part 6A | Pedestrian and Cyclist Paths | Bicycle facility design workshops currently being developed in conjunction with some state and territory road agencies. |
| Part 6B | Roadside Environment | 2010/2011 – Dates to be advised |
| Part 7 | Geotechnical Investigation and Design | Course available (1 day) in Perth, Adelaide, Sydney & Canberra during 2010 |
| Part 8 | Process and Documentation | 2010/2011 – Dates to be advised |

Forthcoming detailed training in road design and intersection design

Training courses based on the new Austroads road design and intersection design guides will be offered by ARRB in 2010.

A three day course in geometric road design similar to the *Basic Geometric Road Design* course previously provided by ARRB, but updated in line with the new *Guide to Road Design – Part 3: Geometric Design*, will be available in the second half of 2010. The objective of this three day workshop is to provide new graduates, draftpersons and technicians with a practical understanding of basic geometric road design.

A three day course will be available in the second half of 2010 to provide training in the geometric design of unsignalised intersections, signalised intersections and roundabouts based on the principles and methods published in the new Austroads *Guide to Road Design, Parts 4, 4A, 4B and 4C*. This course will be similar to that previously provided by ARRB based on the now discontinued *Guide to Traffic Engineering Practice – Part 5: Intersections at grade*, and *Guide to Traffic Engineering Practice – Part 6: Roundabouts*.



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Program*
***Subject to change**

| Time | Day 1 | Time | Day 2 |
|---------|--|----------|---|
| 9.00am | Registration. Tea and Coffee | 8.30am | 8.30am Tea and coffee |
| 9.30am | <ul style="list-style-type: none"> Welcome and Introduction Objective of workshop Program | 8.45 | Review of day 1 Introduce day 2 |
| 9.45am | <ul style="list-style-type: none"> Austroads - Purpose and Aims Austroads Guides - General The role of ARRB Group | 9.00am | Guide to Road Design Part 4A – Unsignalised and Signalised Intersections (cont) Amended sight distance parameters |
| 10.00am | The Guide to Road Design <ul style="list-style-type: none"> Composition and subjects Part 1 – Introduction Part 2 – Design Considerations Introduction to Normal and Extended Design Domain | 9.15am | New intersection turn lane warrants - background and explanation |
| | | 9.45am | Right turn and left treatments |
| 10.30am | Guide to Road Design Part 3 – Geometric Design <ul style="list-style-type: none"> Structure and Content Purpose and scope Normal Design Domain criteria New methods and parameters | 10.30 am | Morning tea break |
| 11.00am | Morning tea break | 10:50am | Bicycle lane treatments |
| 11.20am | Guide to Road Design Part 3 – Geometric Design (cont) <ul style="list-style-type: none"> Revisiting the Operating Speed Model Superelevation for both urban and rural roads Revised sag curve design criteria | 11.15am | Application of EDD to intersections |
| 12.05pm | New sight distance Model | 11:50am | Guide to Road Design Part 4B – Roundabouts <ul style="list-style-type: none"> Structure and Content Purpose and scope New material/changes |
| | | 12.00pm | New design method and parameters for design of roundabouts |
| 12:30pm | Lunch break (lunch provided) | 12:30pm | Lunch break (lunch provided) |
| 1.30pm | Application of Extended Design Domain in geometric road design | 1.30pm | Treatments for pedestrians and cyclists at roundabouts |
| 2:00pm | Guide to Traffic Management Part 6 – Intersections, Interchanges and Crossings <ul style="list-style-type: none"> Structure and Content Purpose and scope Key topics Relationship to the Guide to Road Design | 2.00pm | Encroachment areas and landscaping |
| 2.30pm | Guide to Road Design Part 4 – Intersections and Crossings - General <ul style="list-style-type: none"> Structure and Content Purpose and scope New material | 2.15pm | Linemarking |
| | | 2.30pm | Guide to Road Design Part 4C – Interchanges <ul style="list-style-type: none"> Structure and Content Purpose and scope New guide. |
| 3.00pm | On-road and off-road treatments for cyclists at unsignalised and signalised intersections | 2.45pm | Design considerations Forms of Interchange Design of entry and exit ramps |
| 3.30pm | Afternoon tea break | 3.00pm | Afternoon tea break |
| 3.50pm | Guide to Road Design Part 4A – Unsignalised and Signalised Intersections <ul style="list-style-type: none"> Structure and Content Purpose and scope New material/changes | 3.15pm | Queensland Department of Transport & Main Roads transition to Austroads |
| | | 3.30pm | Opportunity for further questions, general discussion on the guides or on design issues. |
| 4.30pm | Finish of day 1 | 4.00pm | Workshop closure |

