

DESIGNPAVE & PERMPAVE: + APPROVED INSTALLER PROGRAM: Paving Design Workshop Advanced Module

DATE: 3rd December 2019 **VENUE:** City of Hobart, Council Centre, 16 Elizabeth Street, TAS

Course overview

The Advanced course is a continuation of the Concrete Masonry Association of Australia's (CMAA) Module 1: An Introduction to Paving. The CMAA recommends participants to have completed Module 1 before undertaking the Advanced Module. The contents of the Introductory Module are considered assumed knowledge and will only be revised briefly during the advanced module.

The Advanced Course will expand on student's pre-existing knowledge of clay and concrete segmental pavement characteristics, specification and design principles. The course will introduce participants to traffic estimation, geotechnic design considerations, design of concrete segmental pavements using Designpave, failure prevention and management techniques used in the industry.

Upon completion of this program participants will be equipped with the knowledge to create designs for segmental pavement systems. Participants will be given the tools to actively manage, identify and prevent pavement failures from occurring. Participants who complete the advanced module have the necessary skills to design, install and manage segmental pavement installation in applications ranging from civil, commercial and semi-industrial applications.

Assessment

The advanced course will require the completion of a theoretical assessment. This theoretical assessment will consist of a set of questions that focus on the main points of the module, with a priority on segmental pavement design principles and design applications.

Participants will be given the test as a take-home exam, to be completed in their own time. As participants have ready access to the course notes and resources, they will be required to achieve a mark of 85% in order to pass.

Presenter



**Michael Koungas –
CMAA**

Michael obtained a Bachelor of Civil engineering degree from the University of Technology Sydney and is currently chairing the CMAA Technical committee.

Having a great passion for building materials, Michael was offered a cadetship by Adelaide Brighton's Concrete and Aggregate division. During the cadetship he traveled to numerous locations across Australia gaining experience in various roles. He was then offered his current role at the Brickworks' Masonry division as Engineering Manager for Austral Masonry.

Michael's experience has led him to oversee major retaining wall and paving projects within the Austral Masonry business. The Leppington Bus Depot was designed for Interline Bus Services and is the most recent project that Michael has been involved in. He oversaw the interlocking and permeable paving from the initial design phase up until the projects completion.

Michael prides himself on using different combinations of materials and products available to achieve an outcome. His philosophy has always been, "there is more than one solution to a problem. When you identify and analyse all possible solutions, you can then make an informed decision based on the clients requirements and expectations".

Session 1: 9:00 - 10:20

Introductory Review – Review of the Introductory course

Common Misconceptions - Explore case studies around common misconceptions around paving systems.

Subgrade Investigation - Investigation to determine subgrade strength, drainage conditions and their impact on segmental pavement design applications.

Varying Subgrade Strengths - Explores various subgrade types and their impact on segmental pavement design applications.

Site Preparation - Explores the site condition and preparation operations to be undertaken before the base layer is placed.

Surface Design - Explores how designers can employ design techniques to combine visual appeal with pavement serviceability.

Morning Tea: 10:20 - 10:35

Session 2: 10:35 - 11:30

Thickness Design - Depending on different types of base, explore the design decisions made by designers and their reasoning following an assessment of a pavements function and loadings.

Permeable Feature - Explores innovative and exciting uses of hydraulic segmental pavement structures.

Preventing and Managing Failures - Explore the signs that suggest a pavement has been installed incorrectly and provides suggestions on how to best avoid these problems.

Failure Case Studies - Explore the relationship between poor site practices and the common issues that develop as a result.

Lunch: 11:30 - 12:10

Session 3: 12:10 - 1:30

Traffic Estimation - Explores traffic estimation procedures and loading design requirements of segmental pavements, using the Axle Group Equivalent Standard (ESA) and the Average Annual Daily Traffic (AADT) methods.

DesignPave Workshop - Explores how designers can simulate model pavement structures using the DesignPave program through a set of real world case studies, incorporating all prior knowledge.

Review & Recap - Overview of all discussion topics covered in sessions 1-3.

RSVP:

By 26th November 2019 to technical@cmaa.com.au