

## **TRANSPORTATION**

### **1.10pm Transport Demand Management for Regions and Districts – Mark Apeldoorn**

#### **Abstract**

Transport Demand Management (TDM) is a key component of planning for all local, regional and central government agencies. Rotorua District has recently completed its Strategy and Waikato Regional Council is integrating the NZ Transport Strategy regionalisation of targets. The presentation outlines how strategies can be developed such that they are relevant to their environment, and how regions might go about integrating targets and monitoring programs into their TDM Strategies.

#### **Mark Apeldoorn**

Mark is a Director of Traffic Design Group Ltd and responsible for both the Tauranga and Hamilton offices. He holds a Bachelors degree with honours in Civil Engineering, a postgraduate Certificate of Proficiency in Transportation Planning and a postgraduate Diploma in Business Management, all from the University of Auckland. He is a Chartered Professional Engineer (CPEng), a Member of the Institution of Professional Engineers of New Zealand (MIPENZ), an International Professional Engineer (IntPE), and a member of the Institute of Transportation Engineers (ITE America). He has seventeen years experience as a practising traffic and transportation engineer and 21 years total engineering experience. He has worked as a local authority engineer and currently as a traffic engineering consultant. As a consultant, he has been engaged by local authorities, and private concerns to advise on regional, central and suburban traffic and roading issues covering strategy, policy, safety, management and planning matters of many kinds.

### **1.50pm Road Maintenance, are we too late? – Mike Chadderton**

#### **Abstract**

Extracting more value for money has been an important objective for Roading Engineers. Training, methodologies, materials, material additives, mechanisation, quality control, procurement strategies, asset management and intervention strategies, have all been developed or redeveloped, in an effort to get more mileage, from the maintenance dollar.

Having travelled extensively throughout the North Island over the last six months, covering over 30 000km on State highways and Local Body networks the author posed two questions based on his observations.

Have we become so complex in our thinking that we are now missing the wood for the trees? Is it now time to get back to basics, to the core fundamentals of road maintenance management?

This paper looks at the potential benefits of maintaining the integrity of the sealed surface as a primary intervention strategy. What would result if the road defects were identified earlier, made waterproof and then assessed for further treatment? Would this strategy reduce the size and complexity of a defect? Would there be benefits to the pavement, the network user or the network maintenance budget?

In an effort to identify and quantify any potential benefits a retrospective view has been taken on several Road Controlling Authorities roading networks. Road maintenance records are reviewed and evaluated, in conjunction with network inspections, and a conclusion is reached on the potential benefits of implementing an earlier waterproof intervention strategy.

**Mike Chadderton**

Michael has been in the roading industry for more than 30 years. Like many other Roothing Engineer's he started his career with the Ministry of Works. Having spent time in Policy, Consultancy and Contracting roles he has developed a holistic approach to his work. His interest in road maintenance has seen him manage and maintain many roading networks including Forestry, State Highway and Local Body roads.

Michael is a Director and Manager of A J Broom Road Products NZ Limited and through this role remains committed to improving the roading infrastructure in New Zealand.

**2.30pm**

**Performance Based Contracting: Lessons Learnt from PSMC001 – Fritz Jooste****Abstract**

Over the past two decades, performance based contracting (PBC) has become a viable alternative to traditional method-based contracts. The PSMC001 contract started in 1999 and was the first road maintenance contract to implement the PBC model in New Zealand. This contract covers the performance specified maintenance of 450 km of roads in the Waikato and Taranaki regions of New Zealand's north island. This paper provides a concise summary of published literature on the PBC model, with a specific emphasis on advantages and disadvantages as applied to the road building industry. This summary is then juxtaposed against ten years of experience gained in the PSMC001 contract as seen from a contractor and client perspective. Experiences on similar road maintenance contracts in other countries are also discussed and, where feasible, compared with the New Zealand experience on PSMC001. The paper specifically deals with unforeseen challenges that arose during the course of the contract, and makes recommendations toward improved contractual and operational practices which should benefit contractors and road agencies involved with performance based contracting.

**Fritz Jooste**

Dr Fritz Jooste completed his PhD at Texas A&M University in 1997, after which he worked as a senior researcher at the Division of Roads and Transport Technology of the CSIR in South Africa. In 1999, Fritz started working as an independent consultant, working on a wide range of projects related to the transportation industry. These include the development of a design methodology for bitumen stabilized pavements and guidelines for data collection and analysis related to road maintenance and rehabilitation. Fritz currently works as a technical director with Transfield Services New Zealand where he focuses on systems development and data analysis.