Creating More from Less & People Communication

1.10pm – 1.40pm

Old Structure – New Techniques! Revitalising the 100 Year old Grafton Concrete Arch Bridge utilising unique construction technique in New Zealand – Ashley Cooper, Phillip McConchie & Gerhardus Van Niekerk

Abstract
Aging infrastructure in New Zealand is resulting in some interesting challenges for engineers and construction companies to contend with when the need arises to rehabilitate older public assets often located in highly congested urban environments. Challenges made all the more so by Asset Managers insistence (on behalf of the public) for the latest best practices to minimise the social and transportation infrastructure impact.

The bringing of just such a civic structure up to current New Zealand seismic loading and structural integrity standards is perfectly illustrated by the recent rehabilitation of the iconic 100 year old Grafton Road Concrete Arch Bridge where the foundations and concrete structure were strengthened and a superior new surface protection product applied to all structural members, resulting in an improvement in the loading capacity significant enough to enable the bridge to be used as a vital bus transport corridor-connector exclusively during the day and for private vehicle access at all other times – thereby regaining full use of an existing asset.

Further unique challenges on this project were the strict environment protection requirements and the necessity to preserve historic graves underneath a portion of the bridge.

All of these compounding and sometimes competing challengers were successfully overcome by council, the designers, and the construction team; resulting in the delivery of a successful outcome to all stakeholders. The key was the combined utilisation of unique construction materials, methods, environmental protection systems and an award winning temporary scaffolding access system.

The project is now complete and the result a beautifully restored and fully functional structure with a renewed life expectancy of 100 years.

KEYWORDS - DESIGN, CONSTRUCTION, SCAFFOLDING ACCESS SYSTEMS, CONCRETE STRENGTHENING.

Ashley John Cooper, Project Manager, Brian Perry Civil, Auckland NZ, B. Ashley, a Project Manager with Brian Perry Civil, was the Project Manager for the Grafton Bridge Rehabilitation Project. He is an experienced Contracts Manager and has had exposure to a wide variety of engineering disciplines including bridge construction, roads, coastal protection work, commercial building, off shore oil and gas developments, structural and civil design."

1.50pm – 2.20pm

Integrated Planning to Deal with Procurement Challenges – Luke Meys

Abstract
As Local Authorities and private businesses are being asked for 'Financial Prudence', and to save money whilst still delivering services, more emphasis will be in better integrating and optimising internal procurement systems with the external service delivery providers.

One of the most effective ways for organisations to save money is in their procurement practices, both for professional services and physical works delivery. One of the questions is what to outsource and how? The author of this paper has had first hand knowledge of Alliancing, Design and Construction Contracts, Professional Service Panel Contracts,

physical works FIDIC and the more traditional NZS3910 contracts. With this knowledge this paper presents the various factors of preparing a robust procurement strategy. A strategy which optimises the in-house skills with the external providers. This is one important way to meet the challenges of cost savings in today's economic climate and looking beyond to the days of economic recovery.

Luke F Meys Water and Environmental Sector Leader – Opus International Consultants. Luke is the company Sector Leader responsible for the performance and future growth of one of the largest water and environmental engineering consultancy in New Zealand. Opus also has operations based in Australia, UK and Canada. Luke's Sector covers the many areas of the water industry including stormwater, water, wastewater, river engineering, hydrology and asset management.

Luke's senior management involvement with hundreds of traditional 3910 contracts, the Metrowater Alliance contracts, long term utilities panel contracts, various forms of Design and Build contracts and the large long term performance based contracts has developed his interest in preparing successful procurement strategies for engineering infrastructure projects.

Luke travels extensively between client organisations reviewing and noting the styles, risks, benefits and pitfalls of various procurement techniques.

2.30pm – 3.00pm

Addressing Workforce Challenges by Getting the Right Information to Utility Staffers – Debra Olney & David James

Abstract

"If we only knew what we know, we would be three times more productive".

Why has this statement continued to resonate with executives, managers, and field staff long after Lew Platt, former CEO on Hewlett Packard, made it 15 years ago? Because it remains the core issue surrounding knowledge and information management in the workplace – knowing what you know in a dynamic landscape.

For Utilities, challenges relating to the capture, transfer, access to and easy management of knowledge limit an organisation's ability to function effectively. MWH has been working with a number of Councils and Utilities, both here and overseas, using Activemanuals, to create database-driven manuals, including operations manuals, maintenance manuals, and business process manuals, all with the same key feature: integration of multiple sources of information surrounding specific facilities or processes. The need for knowledge and information to be accessible is fundamental. By using these database driven manuals, operational staff have had access to information at the point of need, thereby removing the issue of omission, duplication or dis-coordination of activities when copies or out-of-date versions of manuals are used. The ability to integrate varied information sources including engineering O&M manuals, manufacturer manuals, technical documents, drawings, photographs and videos plus real-time updates and revisions, has ensured accurate information direct into the hands of those Operations staff who need it.

This presentation will step through the process and share the first-hand experience of a Council/utility.

Debra Olney: Debra is currently the Group Manager of MWH's Business Solutions Group and a senior member of the Infrastructure Management Team that specialises in the many different aspects of asset management. Debra has 19 years engineering experience both within New Zealand and internationally. Her experience in local government processes (both asset and business related) and interpreting the practical implications of local government legislation has allowed her to work with and provide valuable consulting services to numerous Councils. Debra has been instrumental in implementing MWH's Advanced Asset Management and Activity Management Planning processes. Recently, as a Board member of INGENIUM, she has a close association with National Asset Management Steering (NAMS) Group, which has enabled her to remain abreast of the industry developments in this area. Debra has also presented various papers at conferences on her many practical experiences.

David James *B.Agric.Mgt*. David is currently a senior consultant in MWH's Business Solutions Group and has 15 years experience in water services planning, management and delivery as well as specialised expertise in asset/activity management planning and practice. He has worked both as a consultant and in local government, and has been practically responsible for the running of Council water and waste activities. He has also provided a range of consulting services to local government agencies with particular focus on strategic planning and activity/asset management planning.