

Case Study

Mitchell Freeway Extension, Western Australia

Information Control Leads to Improved Client Service

Client

Macmahon is a major Australian Company operating in the mining and civil construction sectors. Macmahon operates throughout Australia and on selected projects in Malaysia and New Zealand.

Project

Macmahon is using Aconex on the AU\$171.5 million (US\$120m) extension of Western Australia's Mitchell Freeway. The project, which is due to be completed by mid next year, will deliver a four kilometer extension of the freeway from Hodges Drive to Burns Beach Road that will include two freeway lanes in each direction, three interchanges, three bridges, a pedestrian overpass, and relocation of the existing railway.

The Freeway will ease congestion in the rapidly growing northern suburbs by providing a faster route for much of the traffic currently using the suburban road network. It will stimulate industry and bring social and transport benefits to the rapidly growing communities north of Perth.

Macmahon, a highly experienced road, bridge and rail contractor, was awarded the Design and Construct contract. The project commenced in late 2006 and is due to be completed by mid-2008. The lead design consultant is BG&E.

BG&E is a consulting engineering practice with offices in Perth, Sydney and Melbourne in Australia, and Dubai in the United Arab Emirates. BG&E operate throughout Australia, the United Arab Emirates and on selected projects in various regions of Asia.



Challenges

The Mitchell Freeway project involves a large, dispersed project team, of approximately 50 organizations and more than 250 project team members, making information control more difficult.

Previously, Macmahon and BG&E would communicate with other organizations using hard copy and couriers. Since this project is likely to generate thousands of documents and correspondence items, they were aware that the processes associated with these methods, such as manually tracking workflows and completing spreadsheets, would be time consuming. These processes would also not provide the visibility of information to the client and other key members of the project team that was required.

Solution

Aconex was selected to provide its online information management service to the project. Through using Aconex, all participants are able to manage their documents and correspondence using one online platform, allowing them to view, distribute and track their information electronically at any time and from any location.

To ensure an effective implementation, Aconex supplied unlimited training to all participants, meaning that all parties were proficient in using the system. Following training, unlimited round-the-clock phone and online support was made available.

Results

BG&E has been able to use Aconex to create a more efficient process to service their client. Director of BG&E Consulting Engineers, Judith Uren, said: “Everyone’s looking for better ways to have strong relationships with their client. On this project, it’s a plus for Macmahon that we have succeeded in ensuring the relationship remains strong – and the sharing of information in an open way has certainly helped.”

Macmahon have found that the benefits of using Aconex increase as project participants become accustomed to collaboration, and that systems like Aconex can provide flexibility in meeting the varying needs of users. Phil Barker, Construction Manager of Macmahon commented, “Aconex is an evolving environment, where further developments are being integrated to serve the requirements of the clients. Aconex does appear to be capable of significantly assisting on major projects such as Mitchell Freeway.”

Uren believes that Aconex has contributed to this by automating manual processes and providing greater visibility of data. “We’ve been able to use Aconex workflows to create procedures that help meet the client’s expectations. When you start to use the facility you realize the benefits you’re obtaining,” said Uren. “Documents are updated and automatically forwarded via a transmittal and nominated recipients are notified via the workflow. In essence, you’re minimizing your risk and error because the workflow automates the procedure. Quality control comes from knowing that everyone’s received the document.”

The workflows module on Aconex helps steer users through the approval processes. The system reminds users when tasks, responses or approvals are due and allows monitoring of required tasks to check approval and completion status at a glance.

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“We’ve been using the workflows module through the design stage. Macmahon is using workflows to keep the client informed on changes to the drawings once they have been signed. When there is a drawing change, the information is placed in a workflow to communicate the change to the client. This ‘design change notice’ is a new procedure. It informs the client of where the drawings are during the issued for construction stage. Without Aconex we’d have to fill out transmittals and use some other system, which would be far more cumbersome.” Uren added, “The client has current information available at all times. Sharing this information helps to bring them into the project.”

Through storing and managing information in a secure, central location, where it can be easily accessed and shared, Aconex has saved time and facilitated collaboration between the project team.

“On this large infrastructure project, we’re working with people in different offices and different locations. Through acting as a central document depository, Aconex is a big time saver and we’re getting better quality control and minimizing risk as well.

“It certainly saves time. There are some procedures, like RFIs and the workflows, that are quite time consuming to generate but with Aconex they can be generated automatically. Also, when sending transmittals, the system is quick and efficient and we can set up groups of people to send documents to. It’s a project-wide time saver as we’re able to supply everyone with information in an orderly fashion and provide a library for everyone on the project. ”

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Uren believes that, on today’s projects, it’s important to have more sophisticated solutions for controlling information. “Projects are becoming larger, and companies are gearing up to become more capable of doing them,” said Uren. “As the project size and complexity increases, controlling documents becomes more difficult. Aconex is facilitating the control of those documents.”