



# ALLIANCE CONTRACTING

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ACEA Discussion Paper

ACEA DISCUSSION

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## ABOUT THE ACEA

### THE CONSULTING ENGINEERING INDUSTRY IN AUSTRALIA

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The Association of Consulting Engineers Australia (ACEA) represents the interests of nearly 250 engineering and technology businesses providing consulting services to government and private sector clients throughout Australia and in more than 40 countries across the globe.

The value of construction projects designed by ACEA member firms each year is estimated to be \$11 billion. The industry is a significant contributor to the Australian economy in terms of both revenue, employment and provides essential services to clients and the community.

ACEA member firms offer a large range of design services for major projects in the fields of building, infrastructure, transport, communications and information technology, project management, environmental management, geotechnical and electrical services, mining, oil and gas.

ACEA firms employ more than 10,000 staff in Australia and many tens of thousands ancillary staff. ACEA is one of the largest members of FIDIC, the international association of engineering, technology and management firms related to the built and natural environment. FIDIC has around 70 member associations worldwide.

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## 1. INTRODUCTION

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A Project Alliance is formed when a client, their major consultants and their contractors undertake to work together to complete a specific project. There is no formula to follow – each alliance is structured to suit the requirements of the specific project and the team members. It is important for consulting engineering firms to understand the major differences between traditional risk transfer project service delivery and alliance contracting, and this is the aim of this discussion paper.

In their presentation to an Alliance Contracting Conference in July 2003, Nicholas Hallett and Lloyd Arnott of Connell Wagner compare the differences in contracting methods and describe the value of a genuine relationship as follows.

*'Contract law came to prominence in the nineteenth century during the days of the Industrial revolution. Quick, in his paper on relationship Contracting (March 2002) has reminded us that the historical development of law of contract necessarily resulted in parties to contracts being able to treat one another as adversaries. He goes on to say that there is now a growing acknowledgement of the importance of relationships in a contracting environment.'*

*'Despite this change of attitude there are still those who thirst for the challenge of winning; and more particularly doing so in a way that causes most hurt to the other contracting party. The emergence of Australia as the current world champion in the field of Alliancing indicates a shift away from confrontation and adversarial relationships to a more friendly approach.'*

*'Both in the UK and Australia there is now a significant school of thought which says that if we treat each other fairly, there is something for everyone; and ultimately the delivery of assets and services works out more cheaply. Furthermore, experience is starting to show that this principle is effective in dealing with all stakeholders, at all stages of the procurement cycle.'*

Worldwide research by senior Australian industry representatives in the late 1980's (Barrell, T et al 1988 p.1) concluded that *'.....claims and disputes have now become an endemic part of the construction industry.....the problem of claims and disputes in the construction industry is a worldwide phenomenon....'*

*'Relationship contracting' was therefore seen in the 1990's by client organisations, such as the Australian Constructors Association, as means of overcoming some of the limitations of more conventional contracting by developing a process 'to establish and manage the relationship between the parties that aims to remove barriers, encourage maximum contribution and allow parties to achieve success.'*

*'Alliancing' has thus given rise to various types of collaborative ventures, from long-term strategic business relationships to short-term arrangements where owners and service providers come together to deliver a single project. Each alliance is therefore unique and different.*

Alliancing can take many forms, some of which have major benefits and some of which have major downsides for the consulting engineering industry.'

## 2. THE NATURE OF 'ALLIANCES'

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The term 'alliancing' is applied to a broad range of collaborative arrangements, some of which are developed to suit particular sets of circumstances.

Public Private Partnerships (PPPs), Build, Own, Operate, Transfer (BOOT), and Build Own Operate (BOO) are particular forms of collaborations that are developed generally to involve private sector participation in government developments. As such, these are more like business partnerships than alliances and are not dealt with in the context of this discussion paper.

Alliancing contracting is also different from joint venture arrangements. These are usually arrangements under which consulting engineering firms may elect to form a business arrangement with another service supplier with complementary skills to jointly undertake a project.

Alliancing' is increasingly being used to refer to a wide range of contracting models, but it is fundamentally important to look behind the label to determine the true relationship that each so called 'alliance' is trying to create.

'True' alliancing is based on equitable risk sharing through the development of collaborative partnerships and behaviours. ACEA is concerned that some clients and owners adopt collaborative models which are not alliances, with expectations that these will deliver alliance-like outcomes. Some contracting arrangements are developed in which an Alliance exists between the construction contractor and the principal, but in which the consultant is engaged by the contractor under D&C or other more traditional risk transfer contracting arrangements. Such an arrangement provides all of the benefits of alliancing to the principal and contractor, but none to the consultant. It ignores the fundamental issue that pure alliancing is built around a set of behaviours which are driven by the equitable sharing of risk and reward between all contracting parties.

There are those owners and principals who tend to have 'an each way bet' by developing an integrated project team while retaining the right to allocate blame, responsibility and liability if problems occur, or outcomes are less than desired. This amounts to 'the alliance you have when you don't have an alliance' in which there is little or no commitment to the principles of true alliancing.

### **3. ALLIANCE CONTRACTING: RISK TRANSFER VS RISK SHARING**

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In traditional contracting such as Design and Construct (D&C) and EPCM, project owners or principals often attempt to transfer most or all risk away from themselves and to designers and constructors. The risks so transferred are often made unquantifiable and unmanageable through the use of warranties, indemnities and unqualified fit for purpose clauses demanded by clients who have little understanding of the role and nature of engineering services.

It is often under these contracting arrangements that the more adversarial behaviours and cultures arise. These can lead to major difficulties in achieving desired project outcomes and in the cost and availability of professional indemnity (PI) insurance for consultants.

Conversely, under a 'pure' alliance contracting model, risk is not 'passed down' in the traditional and legal sense, but is shared equitably by the project participants who are collectively responsible and have ownership of risk associated with the delivery of a project.

There is now sufficient practical evidence among principals, contractors and consultants to suggest that a pure alliance contracting relationship can deliver major benefits for all parties when it is structured and operated in accordance with its guiding principles. However, industry generally accepts that alliance contracting can have its financial disadvantages and particular risks and is not suited to all types of projects. Conventional EPCM contracting is often a preferred option where project and commercial risks are clearly understood and equitably allocated between parties. As always, the key to this is to have the right sort of contract and contracting relationships and conditions.

### **4. THE ANATOMY OF A 'TRUE' ALLIANCE**

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Within the broad definition of alliance contracting, there exists a particular form of alliance which is often referred to as 'pure' or 'true' alliance contracting. The descriptor is used in this sense to distinguish this from the many forms of less-than pure relationship or alliance contracts in which the parties do not have an equitable share of risk, pain or gain.

In his presentation 'Profit by Partnering Through Alliances' to the FIDIC Annual Conference in 2004, Alan Chappel, Specialist Advisor, Connell Wagner Australia says that an Alliance is described by the following:

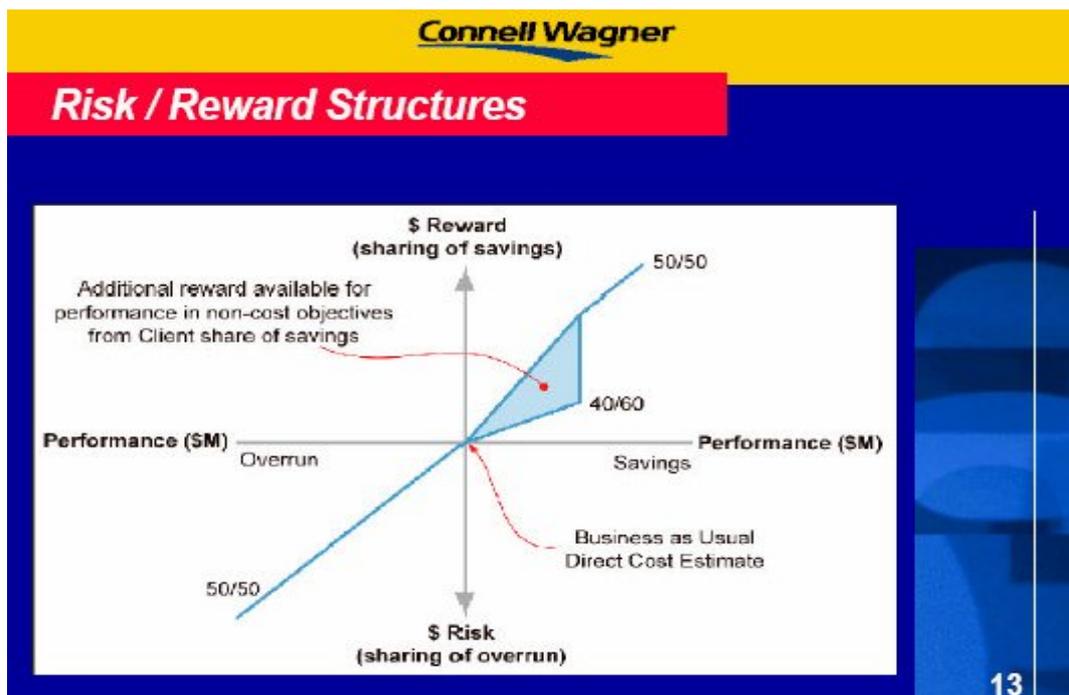
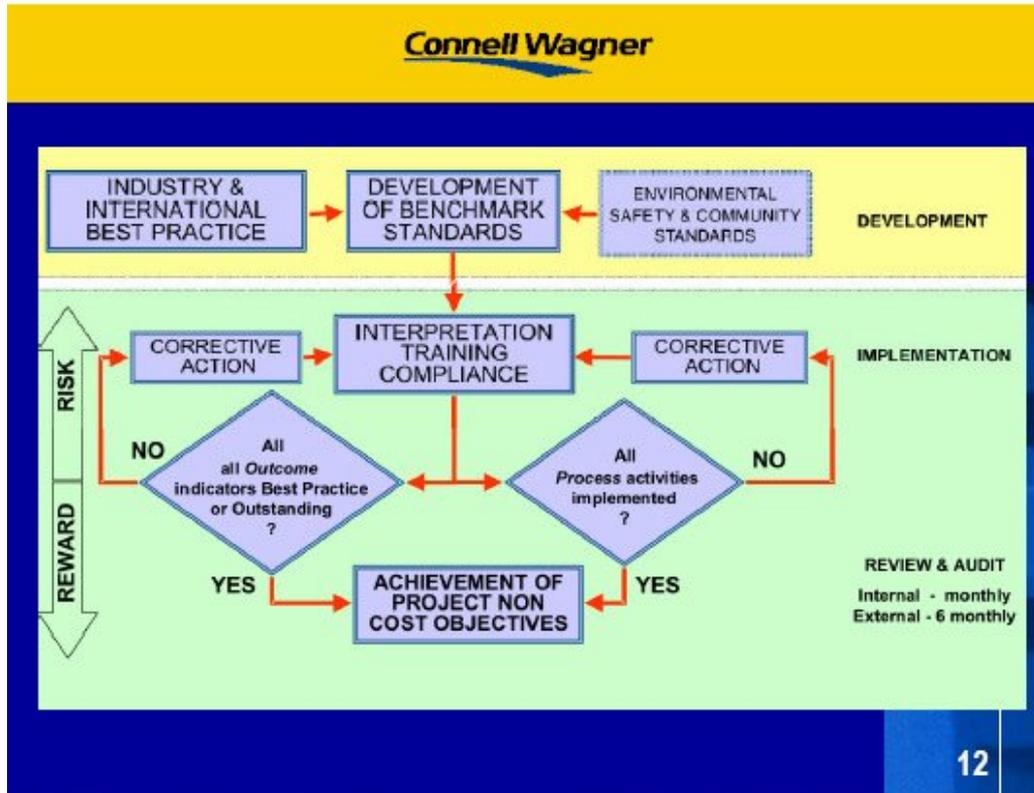
- A joint venture with a client,
- A commitment to common goals,
- A working relationship with trust, openness and cooperation,
- A risk/reward sharing approach,
- Outcomes focussed,
- A different way of doing business (not merely a way of avoiding disputes).

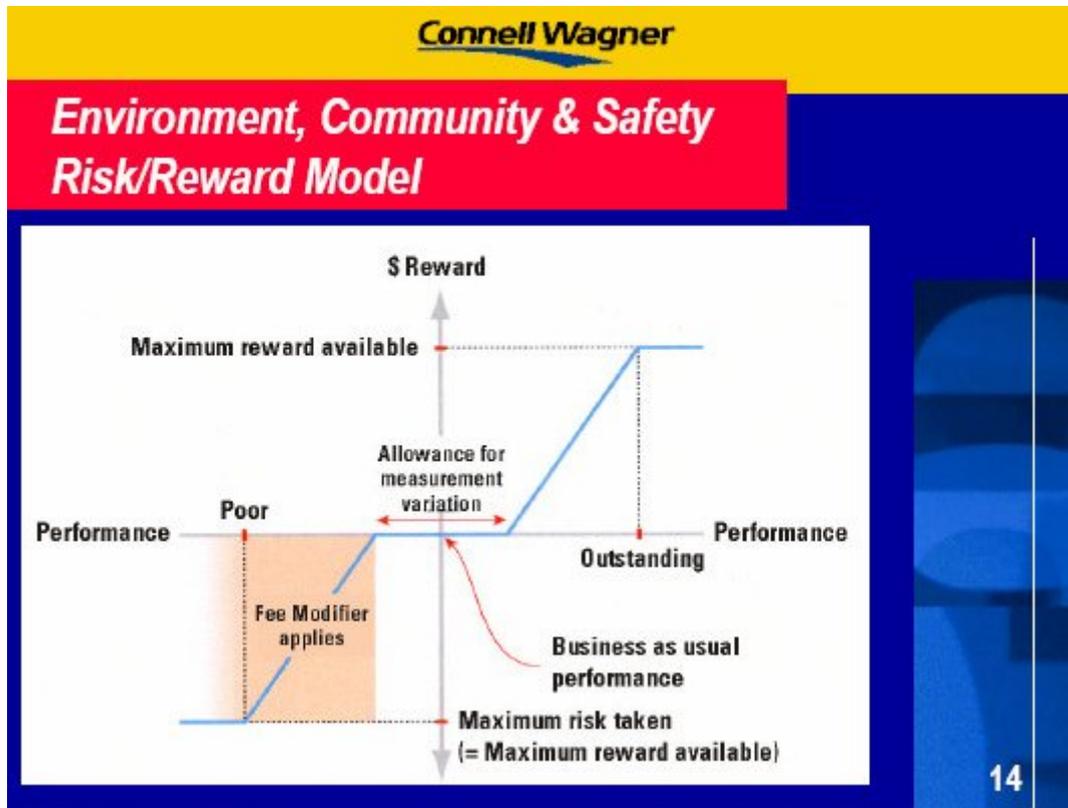
Alan Chappel believes that, for an alliance to develop and operate to its maximum level of performance, the following requirements need to be met:

- A champion/proponent from the client,
- Confidence in the other participants,
- Openness and honesty,
- "Best for project" approach,
- Flexibility and innovative thinking predominates,
- Authority to act is delegated to leadership team (Alliance Board) from companies,
- Bureaucratic and political interference is limited.

The principles characterising a true alliance include the following:

- "Best for Project",
- Commit to a "No Blame" culture,
- Build a champion team integrated across all disciplines/organisations,
- Commit corporately and individually to openness, integrity, trust, cooperation, mutual support, respect, honesty and loyalty to the project,
- Use innovation to achieve exceptional results,
- Outstanding results give outstanding rewards,
- Spread the alliance culture to all participants,
- Develop an agreed and audited process for establishing performance measures.





In his publication 'Introduction to Project Alliancing', Jim Ross, a proponent of true project alliances believes that the success of this form of relationship contracting is dependent upon each project alliance having all of the following characteristics:

- (a) The parties are collectively responsible for performing the work and generally assume collective ownership of all the risks associated with the delivery of the project.
- (b) The owner pays the non-owner participants (NOPs) for their services in accordance with the following 3-limb open book compensation model:
  - Limb 1:** Project costs and project-specific overheads reimbursed at cost based on audited actual costs,
  - Limb 2:** Costs paid to cover corporate overheads and 'normal' business profit.
  - Limb 3:** An equitable sharing of the 'pain' or 'gain' depending on how actual project outcomes compare with the pre-agreed targets which the parties have jointly committed to achieve. This is based on the guiding principle that 'we all win or we all lose'. The downside risk of this to the non-owner participants is the loss of their entire Limb 2 fee (overheads and profit).
- (c) Each project is governed by a joint body (typically called the 'Project Alliance Board' or the 'Alliance Leadership Team', in which all decisions must be best-for project' and unanimous.
- (d) Day-to-day management of the project is by a seamless integrated project team in which all of the members are assigned to the team on a 'best for project' basis, without regard to the party who employs them.

- (e) The parties agree to resolve issues within the alliance with no recourse to litigation, except in the case of a very limited class or prescribed 'Events of Default'

According to Jim Ross, *'under this model, designers, constructors and other service providers can participate with full confidence that, apart from certain insurable risks or an Event of default, their liabilities to each other are limited to the pre agreed pain sharing arrangements'*.

*'As a general principle, under a 'true' project alliance, the alliance participants collectively assume all risks associated with the delivery of the project, regardless of whether or not those risks were within the control of the alliance, whether or not they had considered them in advance, and whether they could reasonably have been foreseen or not'*.

*'This means that situations that would be treated as variations under a traditional contract are not treated as variations under an alliance. They become just another feature of the delivery of the project. Accordingly, the various costs, including those for engineering services, would need to include reasonable and foreseeable allowances for such variations.'*

Certain situations, such as where the principal requires variations in the scope of work which were never contemplated as part of the original project, change the functional and/or design requirements of the project. These are the mechanisms under an alliance for adjusting the cost and other key performance targets, with corresponding adjustments in fees. This is an essential element of true alliance contracting.

## 5. 'TRUE' ALLIANCE PAIN/GAIN SHARING

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What tends to distinguish 'true' alliance contracting from most other contracting arrangements and some other alliancing models is that the participants assume an equitable share of the pain/gain, depending on whether the achieved project outcomes are better or worse than the pre-agreed targets.

Under Limb 3, the pain/gain arrangements are intended to ensure that non-owner participants, and the owner, assume an equitable share of the pain/gain, depending on whether the overall performance is better or worse than the pre agreed targets.

There is no universal process for determining the pain/gain sharing. Each arrangement is unique to each project and is necessarily developed between the participants and agreed prior to project startup.

According to Jim Ross, *'Irrespective of the agreed sharing arrangements, when tested against all possible outcomes, the potential results for all alliance participants should be either win/win, or lose/lose. Under no circumstances should the project outcomes result in a win/lose, or even a win/neutral outcome amongst participants. Everyone wins, or everyone loses.'*

*'Performance by the alliance that is better than the agreed targets should lead to superior returns for the non-owner participants, while outcomes that fall short of the agreed targets should result in inferior returns.'*

## 6. RISKS FOR THE CONSULTING ENGINEERING FIRM IN 'TRUE' ALLIANCES

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### Economic Risk

Under these arrangements, the risk to the consulting engineering firm as a member of the project alliance is the loss of all Limb 2 fees (overheads and business profit). However, the payment of all Limb 1 costs in the event of a bad project outcome, is guaranteed, irrespective of which participating party is at fault. Whilst this risk is generally substantially less than the level of risk transferred to the consultant under traditional contracting arrangements, it is nevertheless an economic risk which is generally uninsurable.

According to Jim Ross, some designers have reported that they are disadvantaged by being on a fixed Limb 2 fee. *They may be required to put in a lot of unanticipated hours in investigating innovations for the benefit of the Alliance, while only recovering a small share of the eventual benefit of the bottom line result. This is sometimes addressed by having the designer's limb 2 paid as a percentage of actual costs or by artificially increasing the designer's share of Limb 3.'*

### **Establishment Audits**

On many Alliances, the owner arranges for up front investigations (often referred to as 'establishment audits') prior to starting the Alliance. These are designed to identify and agree the specific reimbursement arrangements and gather the information that will be used as a basis of reaching agreement on the Limb 2 fee. Jim Ross says that this process may be challenging for consultants, being often apparent that they do not have a good understanding of their own costing and financial processes.

### **Consultant 'free' Time**

Jim Ross suggests that some consultants may also find the Alliance Contracting selection process expensive and demanding compared to D&C. *'Under a typical pure alliance selection process, consultants have to put in a lot more time in internal preparations such as understanding the project and alliancing, developing the written submission, team development workshops and interviews and workshops with the client. This time input has to be by operational personnel (not business development people) and the senior level nominees for the project. Generally none of this is paid for.'*

### **PI Insurance**

A consultant's normal PI insurance policy will not cover losses arising within the Alliance from breaches of professional duty. This is because the Alliance Agreement precludes liability arising between the Alliance participants, and there is therefore no liability to activate the PI policy. Moreover, a PI insurance policy covers only the liability of the insured and cannot generally be extended to cover other parties. Unless a project-specific, no-blame PI insurance policy is taken out for the project, the Alliance participants may have to carry the risk of such losses without insurance.

## **7. SUCCESSFUL ALLIANCE EXAMPLE**

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In his Paper 'Port Road Motorway Alliance – A Consultant's Perspective', Roger Olds, Managing Director, Coffey Geosciences Pty Ltd says that the Port Road Motorway in Queensland was the first alliance contract for Coffey, who joined forces in December 2000 with Leighton Contractors, PPK and Queensland Motorways Ltd, the operator of the Gateway Bridge.

In discussing the development of the alliance for the initial bidding process, Roger says.

*'The team came together in Brisbane and quickly developed a common culture focused on success, developing the theme that this project was "building more than just a road". How true this has been. Unlike any normal design and construct tender, the focus was not on price at that stage, but how we could develop the team that the client would have greatest confidence in to successfully deliver the project. The team included foremen, designers, project engineers, landscape specialists, community and environmental specialists, the project manager designate, and senior management from each alliance partner.'*

*'We had several workshops together, with our alliance coach guiding us through the key principles of alliancing.'*

*'In simple terms, when the alliance forms, all parties, including the client, remove their old corporate banner and wear a simple alliance banner. All alliance members are focused on best for project outcomes and not individual or corporate outcomes. The contracts are structured so that alliance partners have no right to sue each other, and project risks are managed by specific insurance. The financial model ensures that all parties either win together or*

*lose together. Any variations are agreed unanimously by the Alliance Leadership Team (ALT), which includes senior management from each alliance partner. These factors quickly focus the team the best for project outcomes.'*

*'The individuals quickly developed mutual respect for the skills and way of thinking each member brought to the team. There were no dominant members telling the team how things must be. We all made our contributions and developed into a tight knit team that had a high level of self belief that we could build the best road in Queensland, and that we would do it under budget and ahead of time. No element of the project would be compromised, including the community and environmental elements.'*

Roger describes how the alliance team was shortlisted down to one of four teams, and then to one of two teams, finally being selected to go forward to the Target Cost Estimate (TCE) stage of the project.

*'The financial model for the project centred around the TCE. Each alliance partner had a budget Limb 1 contribution within the TCE. The Limb 2 for each partner was established, and a fixed lump sum, based on the budgeted inputs. If extra work was required by any party, then they would be paid for all extra work at Limb 1 cost, but without extra profit. If the project value exceeded the TCE, then there is a 50/50 sharing of this overrun between the client and the other alliance partners.'*

*'If the project cost is less than the TCE, then there is a 50/50 sharing of the savings that becomes known as Limb 3. This changes to a 70/30 split in favour of the client after a certain value of underrun. The Limb 3 bonus pool can be enhanced or eroded by up to a further 10% for the other alliance partners, depending on project outcomes on the non cost KPIs for environment, community traffic and quality.'*

In reviewing project achievements prior to completion, Roger Olds summarises these as follows:

- *'Six months ahead of schedule in a 30 month schedule that commenced late,*
- *Provides the client with an extra bridge structure to grade separate Lindum Road and hence remove the only set of traffic lights on the motorway,*
- *Is about 10% below its construction budget after allowing for the extra bridge,*
- *Has excellent performance on a number of non financial objectives related to the environment, the community, quality and traffic,*
- *Has no disputes to resolve or claims for variations,*
- *Has smiling faces all around.'*

Coffey Geosciences has subsequently been involved in a number of highly successful projects under Alliance Contracting arrangements.

## **8. 'TRUE' ALLIANCE AGREEMENTS/CONTRACTS**

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True alliance agreements are altogether different in format and substance to conventional design and construction contracts. The some of the key differences are:

- Performance obligations are stated as being collective rather than individual,
- The conduct of the parties relative to the project and each other is said to be in 'good faith',
- Consistent with the principle that all parties have an equal say, decisions will require the unanimous agreement of the Project Alliance Board,
- Dispute resolution is totally within and solely between the alliance participants, (although some legal opinion suggests that the absence of a prescribed dispute resolution procedure could result in the contract being void for uncertainty

## 9. ISSUES FOR CONSULTING ENGINEERING FIRMS TO CONSIDER IN RELATION TO ALLIANCE CONTRACTING

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### Examine the nature of the alliance relationships

When contemplating an Alliancing relationship, look behind the label to determine the true nature and structure of the alliance, including the relationships and commitments of the participants.

### Consider the risks of participation in a 'part' alliance

Consider carefully the full implications including the risks associated with participation in an alliance which does not have the core features of a 'true' alliance model. What are the risks and downsides tested against the model?.

### Consider the commercial risks of participation in a 'True' alliance

Consider carefully the full implications including the risks associated with participation in an alliance which has the core features of a 'true' alliance model. Understand that overheads and profit are at risk in the event of the project targets not being met.

### Consider the insurance implications in a 'True' alliance

It is unlikely that your current PI insurance policy will provide cover under an Alliance Contract arrangement.

### Consider whether an alliance is the best project delivery method

Alliances are not always the best solution to project delivery for either the client or the consultant. Consider whether conventional EPCM project delivery is more suited to the project circumstances.

### Carefully assess your alliance partners

An alliance is essentially built around a set of behaviours, based on trust and cooperation. It is important for consulting engineering firms that the proponents are rigorously assessed for management capacity to handle the scope of work, willingness to commit to the project objectives and have a track record of ability to work cooperatively and honestly.

### Understand what you can bring to the alliance to increase the 'reward' factor

Alliance contracting provides participants with opportunities to add value to the project through innovation and outstanding service delivery. Have an understanding of the way in which you can contribute to this and evaluate the level of reward you would seek for doing so.

### Understand that some service fees are at risk

Failure of the alliance partners to deliver a project in accordance with the time, cost and quality objectives of the project can mean a loss of service fee revenue (Limbs 2 and 3) to the participants, including the consulting engineering firm. In a 'no blame' relationship, this is irrespective of the fault or delivery of outstanding performance of each of the participants.

## 10. ADDITIONAL REFERENCE DOCUMENTS AND SOURCES

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'Profit by Partnering Through Alliances' Presentation by Alan Chappel to the 2004 Annual FIDIC Conference in Copenhagen.

'Introduction to Project Alliancing on Engineering and Construction Projects' by Jim Ross, Project Control International Pty Ltd.

'Behavioral Change Leads to Success: Alliance Contracting: Janet Rompala and Darryl Whiteley: 'Watermark' Issue 1.2, November/December 1998.

'Relationship Contracting': Australian Constructors Association.

'Making Sure a Project Alliance Delivers on its Promise': Paper presented by Jim Ross, Project Control International Pty Ltd at the IQPC Alliance Contracting Conference in Melbourne on 26 and 27 October 2004.

'Ensuring Your Alliance Contract is Legally Sound': Paper by Owen Hayford, Senior Associate, Clayton Utz at the IQPC Alliance Contracting Conference in Melbourne on 26 and 27 October 2004.

'Problems and Pitfalls: The Opportunity to Forge an Alliance or Unravel It' Paper presented by Deborah Kiers, MD Asia Pacific, JMW Consultants, at the IQPC Alliance Contracting Conference in Melbourne on 26 and 27 October 2004.

'The Cutting Edge in Procurement Practice': Paper presented at the Major Infrastructure Seminar in Sydney in July 2003 by Nicholas Hallett and Lloyd Arnott, Connell Wagner Pty Ltd

'Port Road Motorway Alliance- a Consultant's Perspective' by Roger Olds, Managing Director, Coffey Geosciences Pty Ltd, Melbourne.