

THE AVOIDANCE OF DISPUTES BY CONTRACTORS IN DESIGN AND CONSTRUCT CONTRACTS

DR DONALD CHARRETT

*BE, LLB, MConstLaw, PhD, FIE Aust, MIAMA
Victorian Bar*

“Risk and uncertainty is inherent in all construction projects.”¹

“Uncertainty in a construction project leads to conflict.”²

“Conflict is . . . any divergence of interests, objectives or priorities between individuals, groups, or organisations; or nonconformance to requirements of a task, activity or process . . . ”³

“ . . . conflict is pandemic; it exists where there is an incompatibility of interest”.⁴

“ . . . conflict can be managed, possibly to the point of preventing it from leading to dispute”.⁵

1. Introduction

Courts uphold the doctrine of freedom of contract, which is the ability to enter into a binding agreement to do anything (other than matters which are contrary to public policy or statute law or are illegal). One important consequence is that the parties will be held to the specific bargain they have made, irrespective of whether it is fair, reasonable or is consistent with common practice or “normal” contracts of that type.

As a general principle, if the terms are clear and unambiguous, the parties will be held to the actual words in the contract. Surrounding circumstances, prior conduct and reference to common practice will be irrelevant.

Furthermore, it should be assumed that the other party to the contract will strictly apply the contract terms in accordance with their plain and ordinary meaning, irrespective of whether that appears unfair, harsh, unjust or not in accordance with the norms of the industry. This applies particularly in the case of a “bespoke” contract which has been specifically

¹ J Lewis, D W Cheetham and D J Carter, “Avoiding Conflict by Risk Management—the Role of the Client’s Project Manager”, in P Fenn and R Gameson (Eds), *Construction Conflict Management and Resolution* (1992), p. 72.

² D A Langford, P Kennedy and J Sommerville, “Contingency Management of Conflict: Analysis of Contract Interfaces”, in P Fenn and R Gameson, *op. cit.* n. 1, pp. 64, 67.

³ P D Gardiner and J E L Simmons, “The Relationship between Conflict, Change and Project Management strategy”, in P Fenn and R Gameson, *op. cit.* n. 1, p. 110.

⁴ Peter Fenn, David Lowe and Christopher Speck, “Conflict and Dispute in Construction” (1997) 15 *Construction Management and Economics* 513.

⁵ *Ibid.* 514.

written by lawyers acting in the interests of one party, as considerable attention will have been focused on drafting contract terms that advance that party's interests.

In order to avoid subsequent disputes it is essential to understand the legal effect of the proposed terms for a contract so as to prepare the tender, and to understand the risks and formulate the appropriate strategies for managing those risks, before the contract has been entered into. Once a contract has been executed, both parties are bound by its terms unless and until they agree to change those terms. Clearly there is little scope to change the terms of a contract unless both parties believe it is in their interest to do so. Accordingly, it is imperative to ensure that the contract terms are satisfactory *before* it is executed.

After execution of a contract, both parties are bound by its terms, and these must therefore form the guidelines for successful management of the contract, and execution of the work. This paper presents some suggestions that may assist design and construct contractors to avoid the type of contractual disputes that can result from issues arising before entering into a contract, as well as during its execution.

The contents of this paper reflect the personal views and opinions of the author, based on his experience as a lawyer and consulting engineer, and do not reflect the views of any organisation.

2. Preparation of tender

It is trite to state that understanding the scope of work required by the contract is fundamental to preparing the cost and time estimates that will be incorporated in the tender. Further, that scope (and the final product) is conditioned by the quality required under the contract.

The importance of careful preparation of the contractor's programme which is submitted as part of the tender and that may form part of the contract cannot be over-emphasised. It will no doubt be a central element in preparing the tender price. It may also have pervasive effects on the contractor's obligations under the contract, as many construction contracts include the contractor's programme as a contract document, and require the contractor to follow that programme. The time schedule needs to be commensurate with the resource and capacity availability, and to allow a realistic time for execution of all the activities, as well as to provide for some contingency (*float*).

3. Contract terms

Careful assessment of the proposed contract terms and their impact on scope, time, quality, cost and risk is just as important as the careful preparation of the tender itself. In the common case of a "bespoke" as opposed to a standard form contract (perhaps with modifications), the

importance and time required for this assessment should not be underestimated.

Each party to a construction contract has different and perhaps irreconcilable views of what are the desirable conditions of contract, which might be along the following lines:

- principal: conditions that deliver a complete project of the highest quality for the lowest contract price, in the shortest time with as many known risks and all unforeseen risks the responsibility of the contractor.
- contractor: conditions that unambiguously define the required scope and quality of the work for a defined price (as high as possible) to be completed within a time that is sufficient to carry out the work with normal resources and allowing for all possible contingencies, with as many known risks and all unforeseen risks the responsibility of the principal.

“Non-standard” contract terms (in the sense of altering the “normal” balanced risk allocation in standard form contracts) in either standard form contracts or bespoke contracts are usually put forward by one party to alter the risk allocation more in its favour. As principals generally put forward proposed conditions of contract with the tender documents, it is likely that non-standard terms in these contracts will involve the contractor in accepting more risk than normal.

Faced with an apparently onerous non-standard contract term in the tender documents, a contractor can adopt one of the following approaches:

- (a) qualify its tender, and negotiate a more satisfactory term;
- (b) accept the term as proposed, and price the additional risk accepted by the contractor as part of the tender price; or
- (c) accept the term as proposed without pricing any additional risk, and hope that the risk will not materialise.

Each of these approaches carries with it its own risks, and the choice of which approach to take for each onerous contract term requires a careful commercial assessment taking into account the current company and industry circumstances. In a competitive tendering environment, either (a) or (b) may make a tender uncompetitive because other contractors may accept the risks in the non-standard term, or not price it properly or at all. The risk in (c) is obvious: if the risk materialises, the cost of dealing with it has to be absorbed by the contractor in circumstances where there is no budget for it.

The time and cost involved in fully assessing the impact of non-standard contract terms is considerable, as is the difficulty of negotiating less onerous terms with a principal who is trying to achieve a contract with one-sided risk allocation. The allocation of risks to the contractor may be dictated by the

financiers providing loan funds for the project, for whom certainty of price is more important than the magnitude of the price itself. Such financiers accept that there is a cost in the contractor accepting more risks than “normal”, but it is vitally important for them in determining the viability of a project and minimising their risks that the entire funding be in place from the outset. Accordingly, from the financiers’ perspective, the contract price needs to be fixed to the maximum extent possible at the time of execution of the contract, and this may involve the contractor in accepting risks that in other contracts are borne by the principal.

There are some contracts which a contractor would be ill advised to enter into. A project in which major execution problems become contractual disputes will almost certainly not be successful in terms of financial performance. Given the many and varied risks that contractors undertake in design and construct contracts, the losses on individual contracts can be very substantial, if risk that has not been adequately priced subsequently materialises. There are examples of large contractors that became insolvent because of disastrous performance on one major design and construct contract. Accordingly, it is important to set the risk/cost boundaries to define the point beyond which a contract is unacceptable and will not be entered into. Amongst other things, this requires awareness of contract terms that are unacceptable irrespective of price, and undesirable contract terms for which the additional risk can and should be priced.

The high transaction costs associated with non-standard contract terms provide a compelling argument in favour of a standard contract form which is widely known and understood within the industry, e.g., Australian Standard AS4902 General Conditions of Contract for Design and Construct, NEC3 Engineering and Construction Contract, or the FIDIC Conditions of Contract for Plant and Design-Build. It will frequently prove to be impossible to dissuade a principal from using a bespoke contract for which it has already paid a substantial amount in legal fees and which is perceived to “protect” and advance the principal’s interests. However a tenderer could propose use of a standard contract form as a cost-effective alternative, if the price of the project/contract specific risks which are built into the tender price for a bespoke contract are substantial.

It should also be borne in mind that the current economic conditions, in Australia at least, are more favourable to contractors than they have been for many years. The current boom in resource and infrastructure projects shows no sign of a downturn any time soon, and has resulted in significant resource constraints in the ability of Australian contractors to execute all of the available work within the timeframe desired by principals. There are also projects in which, because of the specialised nature of the work, the number of competent and available contractors is very limited. All of these factors mean that in the current environment, tenderers probably have more ability to negotiate acceptable contract terms than in the recent past.

No doubt this will change over time, but in the meantime it should be a significant factor underlying contract negotiations.

The importance of investing in good advice, including legal input on the contract terms, during the tender process should not be underestimated. An inappropriate contract will expose every shortcoming in a contractor's project execution and most probably will lead to the project contingency being exhausted (or worse).

3.1 Scope

It is obvious that a contractor prepares its tender price on its perception of the scope of the work required by the proposed contract. It is equally obvious that the principal will (almost invariably) insist on the contractor carrying out the work that the principal believes is required by the contract.

The scope (and quality) of the works required by the principal should therefore be stated clearly and unambiguously in the contract. To the extent that the principal's documents do not do this, it is important that the contractor qualify its tender accordingly to define exactly what will be provided for the tender price. Any resistance by the principal to incorporate such a qualification should be viewed with suspicion, as it may indicate that the principal is expecting more than the contractor has priced and allowed for. A reasonable principal should not have any problem with clarification of any ambiguous specification of the scope of work, as this will assist in avoiding future disputes.

Any changes to scope agreed during tender negotiations need to be incorporated into the contract documents before execution. There are likely to be adverse financial consequences of either not believing that the principal will insist on performance of the contract scope to the letter, or failing to amend the contract to reflect the basis on which the tender price was prepared.

3.2 Time

Given the financial penalties of liquidated damages payable by the contractor for not achieving completion of the works by the contractually specified date, the contractor needs the maximum flexibility possible to make up time lost through its own culpability. That is, if the contractor has a float in its programme, it should be able to absorb that float at any stage of execution of the project works to make up for time it has lost, i.e., it should "own the float".

A contract term in which the principal "owns the float" is very one-sided, and could hardly be termed balanced risk allocation. If the contractor is taking the financial risk of not completing the works by the specified date, in fairness it should also obtain the benefit of any time saved, particularly

early in the project when there are less activities and interfaces to go wrong. If the principal owns the float, it can prevent the contractor from being awarded an extension of time (EOT) for delay caused by the principal early in the project, leaving no float for the contractor's later culpable delays which do not qualify for an EOT. Accordingly, it is suggested that a contractor should not accept contract terms in which the principal "owns the float", unless a significant and realistic allowance in the price is made for the risk that qualifying causes of delay may not result in an EOT.

The terms relating to time in standard contract forms such as AS4902 General Conditions of Contract for Design and Construct or FIDIC Conditions of Contract for Plant and Design-Build are worth referring to as balanced and accepted in the industry. Such terms have obligations on both the contractor and the superintendent, and protect the principal's legitimate interest in being made aware of a claim in a timely fashion, and ensuring that an EOT is only granted for qualifying events which are on the contractor's critical path.

3.3 Quality

The comments above on the need for the contract to unambiguously define the scope of work apply equally to the required quality of the work. The contractor's perception of the required quality will be an important factor in preparation of the tender price, and the principal (almost invariably) will insist on achievement of the level of quality it perceives is required by the contract.

It is obvious that the basis on which the tender price is prepared needs to be consistent with the technical specifications and overriding design obligations. To the extent that the specified quality in the proposed contract documents is not clear, the contractor should qualify its tender to be consistent with the quality it assumed in preparation of the tender. Furthermore, any changes to quality agreed during tender negotiations need to be incorporated into the contract documents before execution. Drafting of wording to relax specifications should be careful and thorough to reflect exactly what has been agreed.

3.4 Cost

In a competitive tendering situation, a tenderer has to come up with the optimum design solution to win the tender, and this puts considerable pressure on it to have a "lean and mean" tender design. However, there is always a significant risk that the preliminary and incomplete design prepared for tender purposes may not reflect the full cost of final construction. The conventional wisdom is that "risk" or "contingency" should be allowed in the tenderer's price for the almost inevitable "design

growth” during the detailed design phase. There may, however, be opportunities to realise savings during the detailed design phase when more engineering rigour can be applied, and some of the “risk” might be designed out. It should be noted that the cost savings that a contractor is able to generate from its own efficiencies, including design innovations that do not involve any departure from either the specifications or any other aspect of the contract, normally do not entitle the principal to any reduction in the contract price. That is, provided the design documents submitted by the contractor comply with the requirements of the contract, the principal is not entitled to any reduction in the contract price for the design and construction of those facilities by the contractor adopting a more economical final design than proposed in the tender. Such a cost saving for the contractor is the obverse of the cost risk it accepts under the contract to construct a fully compliant design.

If provisions in the contract are proposed to share cost savings with the principal, these will need to be carefully vetted to ensure that they will achieve the desired objective, and cannot be circumvented by the principal using other provisions of the contract. Whilst most contracts will contain a provision enabling the principal to issue a variation, such a provision needs to be carefully considered in relation to the operation of any cost-saving clause. In particular, a prudent provision in the contract would be that once the contractor has proposed a “cost saving initiative”, the contract should provide an express mechanism that prevents the superintendent or owner from initiating a variation to capture all the benefit for itself. It is suggested that the concept of seeking cost savings for a principal is inconsistent with a hard money lump-sum contract, where the contractor essentially bears the performance risk. Cost savings are perhaps best left to alliance and similar risk-sharing arrangements.

Proposed cost-saving provisions should not dilute the normal contractual right of the contractor to prepare the most cost-effective design it can produce by the exercise of its engineering skill, provided this is consistent with the requirements of the contract.

3.5 Risk

It should be apparent from the suggestions above, that the legal effect of any non-standard contract terms should be fully assessed to understand changes in the “normal” risk allocation. This may require a very careful analysis of the proposed contractual terms, perhaps in comparison with a standard contract form, to determine the likely effect, and the extent to which it transfers risk to the contractor. It is trite to observe that the addition or deletion of a few words from a standard form can completely change the meaning of an expression, hence the need to assess the actual meaning carefully.

3.6 Project manager/superintendent

It is a fact of life and is accepted in standard form contracts (e.g., AS4902 General Conditions of Contract for Design and Construct and FIDIC Conditions of Contract for Plant and Design-Build) that the superintendent/engineer is the agent of the principal and/or acts for the principal in many situations. However, this is not necessarily inconsistent with a contractual requirement that the superintendent act impartially when exercising his/her certifying role and functions. Given the importance of the role of the superintendent, it is suggested that the contractor should strive to ensure that a contract requires the person fulfilling the role to act impartially when exercising his/her certifying role and functions.

AS4902 defines a simple requirement to achieve this:

“The principal shall ensure that at all times there is a Superintendent, and that the Superintendent fulfils all aspects of the role and functions reasonably and in good faith.”

Such a contractual provision should avoid the conflict between the agency and certification roles which may occur when the contract states that the superintendent will act as the agent of the principal (and not as an independent certifier, assessor or valuer) in discharging each of the functions of the superintendent under the contract.

If the contractor is unable to negotiate a contract term that requires the superintendent to act reasonably and impartially in fulfilling his/her certification role under a contract, one must ask why is the principal not prepared to accept such a provision? If the contractor is not able to rely on a fair assessment of its contractual entitlements, the merits of accepting such a contract must be questioned. Further, it may be appropriate for the contractor to insist on being given a copy of the superintendent's contract of engagement. The contractor could then satisfy itself that the superintendent's contractual duties to the principal do not conflict with the defined role of the superintendent under the construction contract.

It is likely that the contractor will not necessarily agree with all the superintendent's certifications, and there will be genuine differences of opinion as to the correct contractual approach. This is all the more likely if the construction contract does not require the superintendent to act reasonably and impartially in his/her certification role. Recognising this almost inevitable conflict, the contractor should ensure that in this situation the contract provides for an appropriate early dispute resolution process to resolve disputes on the superintendent's certifications.

3.7 Dispute resolution

Given the technical and legal complexities and the divergences between the interests of the parties in any major design and construct project, conflict and dispute at some level is perhaps almost inevitable. One of the

challenges facing the contractor in any such contract is to ensure that its legal rights are adequately protected, without letting the conflict and dispute adversely impact on successful execution of the project, or damage the relationship with the principal unnecessarily.

It is suggested that the contractor's and the principal's interests would be served by a provision in the contract for a streamlined and speedy process for the resolution of disputes that is independent of the contracting parties. One option for this would be an independent adjudicator who could consider submissions from both parties on a disputed matter, and come to a speedy determination without the formality of a hearing or the preparation of lengthy documentation. If both parties accepted the adjudicator's determination, it could become binding after, say, 28 days, and that would be the end of the matter. If either party wished to challenge the determination, it could give notice within 28 days that it intended to implement the formal dispute resolution procedures provided for in the contract. However, to ensure that the parties were not further distracted from execution of the project by the significant work necessary to prepare for arbitration or litigation, the adjudicator's determination could be made binding on both parties until practical completion. Fenwick Elliott extolled the advantages of such contractual adjudication, and published a set of contract terms to achieve it.⁶

The use of adjudication to provide a speedy and at least temporary resolution of a dispute on any issue under the contract is an extension of the statutory adjudication provided for in respect of payment claims under the various Australian Acts for security of payment in respect of "construction work" that is not an oil and gas or mining project. It is similar to the wider use of statutory adjudication for all construction contract disputes undertaken under the provisions of the Housing Grants, Construction and Regeneration Act 1996 in the UK. Anecdotal evidence indicates that this Act has had a significant impact in reducing the number of disputes that have progressed to litigation in the courts. Such adjudication technically only provides a temporary resolution of the dispute, pending a proper determination of the rights of the parties under the formal process of arbitration or litigation. However, it appears that in many cases the parties are prepared to accept the adjudicator's finding as an independent, albeit limited, judgment on the merits of the dispute between the parties, in effect a "mini trial". The limitations of such an adjudication arising from the constraints on time and volume of documentation, in many cases appear to be outweighed by the value of the speed with which a determination is made, and the ability of the parties to put the dispute behind them and get on with the project.

On a major project, the concept of independent adjudication can be taken a step further by the appointment of a Dispute Adjudication Board

⁶ Robert Fenwick Elliott, "10 Days in Utopia" (2008) 27 *The Arbitrator and Mediator* 57.

(DAB), as provided for in the FIDIC construction contracts.⁷ A “full-term” DAB is appointed at the time of project execution, and comprises one or three independent and widely experienced and respected members who become familiar with the project from its inception by reviewing progress and project documentation. The DAB is available to adjudicate on disputes at any time during the project. The experience of the use of DABs on major projects around the world has been that they are very successful in preventing the majority of disputes from becoming “full-blown” arbitration or litigation.⁸ This success probably depends in part on the stature of the members of the DAB, who need to be widely respected professionals with considerable experience in similar projects. It probably also has the worthwhile effect of filtering ill-thought-out or unprepared claims, as neither party would wish to have a claim thrown out by the DAB as without substance.

In addition to the “temporary” resolution of disputes through the use of adjudication or DABs, the contract terms in relation to the ultimate resolution of disputes need to be carefully thought through. Whilst arbitration is widely used in relation to resolution of construction contract disputes, it is suggested that unless it can offer some substantive advantages over litigation (such as the appointment of an appropriately qualified person with expertise in the subject-matter), there is no compelling reason why it should be preferred. In recent years the courts have been more focused on delivering just, speedy and economical dispute resolution, and have specialised building and construction lists in which experienced judges manage the interlocutory steps, and sometimes take innovative actions to expedite the litigation process.

Some of the advantages that arbitration has traditionally had over litigation include confidentiality of the proceedings, an arbitrator chosen by the parties, some party control of the way in which the proceedings are conducted and the potential to limit or exclude appeal rights. Agreement between the parties on the form of arbitration which is incorporated in a construction contract can be a compelling argument in favour of arbitration, particularly if the procedures lead to significant savings in time and cost. The experience of the “stop-clock” arbitration in the *Anaconda* arbitration in Australia demonstrated that a final result can be achieved years earlier than if the full litigation route, including appeals, is followed.⁹ It is difficult to assess whether and to what extent a shorter overall time period to resolve a dispute results in lower legal costs, because the legal

⁷ Conditions of Contract for Construction; Conditions of Contract for Plant and Design-Build; Conditions of Contract for EPC/Turnkey Projects.

⁸ Graeme Peck & Peer Dalland, “The Benefits of Dispute Resolution Boards for Issue Management of Medium to Large Construction Projects” (2007) 26.1 *The Arbitrator and Mediator* 13, 23. See also Dispute Resolution Boards www.constructors.com.au/dispute-resolution/DRB_final.pdf and Practices and Procedures Dispute Review Boards Dispute Resolution Boards Dispute Adjudication Boards http://www.drb.org/manual/1.3_final_4-07.doc

⁹ Peter Wood, “*Anaconda v. Fluor: a Case Study*” (2005) 24.1 *The Arbitrator and Mediator* 61.

team may be significantly larger in a “stop-clock” arbitration to ensure that adequate preparation has been carried out in the available time. However, the shorter elapsed time is of itself a significant advantage, as it limits the disruption caused by the dispute to a shorter time period, and makes it more likely that evidence can be obtained from witnesses before memories have completely faded. It also means that company accounts do not need to carry forward contingent liabilities for as long as might occur with long-running litigation.

Accordingly, it is suggested that if arbitration is to be used as the ultimate method of dispute resolution, the contract terms should provide for a limited time “stop-clock” arbitration, with the arbitrator to be selected from a limited list of suitable candidates.

Consideration should also be given to limiting the ambit of discovery in any arbitration, since discovery of the large numbers of documents produced during execution of a major construction contract is generally a significant component of the overall expense of conducting an arbitration. The vast majority of discovered documents usually are not significant to the outcome, and it is rare to find the “smoking gun”.

4. Contract negotiations

The only time that acceptable contract terms can be negotiated is before the contract is entered into, at the stage where both parties may have compelling reasons to finalise the contract: the principal wants the project to commence so that it can be completed at the earliest opportunity, and the contractor (usually) wants the work. The contract negotiations thus represent an extremely important phase of the project in which a successful outcome lays the foundations on which a successful project can be built. Conversely if the contract negotiations do not result in acceptable conditions of contract, it is very likely that subsequent problems during project execution will result in disputes.

The following suggestions in relation to contract negotiations may prove to be difficult to implement in practice, but there may be adverse consequences in ignoring them:

- be aware of which contract terms are “non-negotiable” because they involve unacceptable risk allocation to the contractor, e.g., unlimited liability;
- be prepared to walk away from the project if acceptable contract conditions cannot be negotiated—ultimately no contract is preferable to a contract which is doomed from the start;
- recognise the negotiating advantages that the contractor may have in respect of quality, time and cost because of its personnel, resources or project history;

- recognise situations in which the contractor has “leverage”, e.g., where there is no or no credible alternative tenderer, or the construction industry is overheated;
- if the proposed contract terms in the tender documents are too onerous, consider not submitting a bid unless more acceptable terms are accepted.

Prohibitions on misleading and deceptive conduct under the Trade Practices Act 1974 (Cth) in Australia condition the limits of acceptable negotiating conduct by both sides prior to entering into a contract. If the statutory requirements are breached it may afford a wronged party a subsequent remedy, however, the factual and evidentiary hurdles may be difficult to overcome. Furthermore, this is normally only available when the project has “failed” in some way, whereas the emphasis should always be on trying to ensure that the negotiated contract conditions are conducive to a successful project.

5. Contract management

The key to successful contract management by the contractor is to understand thoroughly the requirements of the contract, and ensure that it fulfils its formal and substantive contractual obligations. For example, it is almost invariably important that the contract time limits for submission of notices are complied with.

It would usually be helpful to prepare a contract management manual, to assist the contractor’s personnel in understanding the contract and ensuring that its notices and other communications such as invoices are consistent and comply with the requirements of the contract as regards form and timing, and are supported by appropriate back-up documentation. One of the substantial advantages of standard form contracts is that such contract management manuals already exist in whole or in part, e.g., Administration Manual for AS 4000–1997 General Conditions of Contract HB 140–2000 and the FIDIC *Contracts Guide* (2000).

It is suggested that a focus on making claims, and pursuing difficult or unsubstantiated claims, can be counter-productive, as it tends to colour the perception of all claims submitted. It may be appropriate to implement a procedure for “vetting” and approving the submission of claims that might be referred to as “extra-contractual”, i.e., not ordinary variations that can easily be dealt with under the variation provisions of the contract. Such prior vetting and approval could be carried out by a high-level committee comprising appropriate senior personnel, including in-house legal counsel. This would ensure all senior management personnel are represented and can have input into the content of the claim, and understand its impact on on-going business relationships. Such a committee could test the substance and veracity of claims and ensure in management reporting that the

prospects of marginal claims were not overstated. It would not mean that the contractor would not submit a marginal claim, but if it did it would be based on a realistic view of the prospects of the claim and its possible consequences.

If the contractor considers that the superintendent's formal response to an issue is unsatisfactory, it may be appropriate to have a face-to-face meeting in an endeavour to find common ground. Such a face-to-face meeting promotes good communications, the absence of which is often a significant factor in conflict which ultimately degenerates into a full-blown dispute. If such a meeting is not appropriate or is ineffective, serious consideration should be given to invoking the dispute resolution provisions of the contract at an early stage. This strategy is likely to be particularly effective if the contract provides for disputes to be resolved on a provisional basis by an adjudicator or DAB. It is suggested that early, even if provisional, resolution of disputes may act as a circuit-breaker, and enable the parties to proceed with execution of the project without excessive distraction of senior personnel from their primary tasks.

If the number or extent of disputes requiring attention becomes significant, it may be worth mobilising a separate disputes team so that claims can be properly prepared, and project personnel are not diverted from execution of the project itself or become involved in avoidable confrontation with the principal. A separate disputes team that is not associated with execution of the project might also act as a primary filter to weed out hopeless claims without substance. If such a contractor team is not convinced that there is sufficient evidence to support a claim, it is probably a strong indication that the claim lacks substance and should not be put to the principal.

6. Management of project execution

It is obvious to state that any failure by the contractor to fulfil its obligations under the contract may lead to a dispute. However, statement of this obvious fact serves to emphasise the fundamental importance of the contractor managing its substantive and formal contractual obligations in accordance with the requirements of the contract. The following are some of the project management issues which may be problematic:

- sufficient resources need to be available from the start of the project so that there is no unnecessary and avoidable slippage in the programme;
- realistic and credible "as built" programmes should be maintained that are consistent with actual progress, and can form the basis of accurate reporting to the contractor management and to the principal;
- all work needs to be completed to the quality required by the contract; and

- design documents should be submitted to the principal as required by the contract.

It is critical that appropriate resources are devoted to developing and maintaining a comprehensive and contractually compliant programme against which progress can be measured. A properly prepared programme that is regularly updated during the course of the project to reflect actual progress and realistic projections of remaining work will be an invaluable project management tool in achieving timely performance of completion of the works under the contract, and reporting progress to the principal. If there are disputes with respect to time, such a programme provides cogent and compelling evidence of what actually happened on the project, a task which is very difficult to do retrospectively. Courts or an arbitrator will be more persuaded by contemporaneous documents than those prepared after the fact. Furthermore, accurate, contemporaneous documentation that comprehensively demonstrates the contractor's entitlements may well dissuade a principal from initiating a dispute.

Good documentation is an essential aspect of proper project management. It is important for proper administration of the contract, particularly records of any work done that may be outside the contractual scope and that may form the basis of a variation claim—these include time sheets, and records of material procurement and equipment hire. There may also be formal contractual obligations in respect of documentation deliverables.

The other reason for the importance of good documentation is that it is invaluable for disputes that have to be resolved through the formal processes provided for in the contract. The explanatory notes accompanying the FIDIC contracts are apt and applicable to every contract:

“The importance of good record-keeping cannot be over-emphasised. The resolution of disputes frequently rests on the adequacy of contemporaneous records. If a Party declines to agree matters for record purposes, on the spurious ground that agreement of facts indicates an admission of liability, the DAB or arbitrator(s) may decide to rely upon the other Party's unchallenged contemporaneous records.”¹⁰

Managers responsible for projects need to be familiar with the relevant conditions of contract, and the formal obligations it places on them. Engineers need to be familiar with the relevant technical documents incorporated in the contract, and must know the extent of the contractual scope of work and the required quality as well as the contractual dates that must be met. This is particularly the case in respect of a bespoke contract, which may place more onerous obligations in respect of scope, time, cost or quality than is normal in the construction industry for similar projects.

¹⁰ International Federation of Consulting Engineers (FIDIC), *The FIDIC Contracts Guide* (2000), p. 302.

7. Resolution of disputes

The focus of contract and project management will be to try to avoid disputes, but despite the contractor's best endeavours, disputes may occur that require resolution in the manner provided for in the contract. As with any other aspect of execution of a project, proper management of the dispute resolution process is important to ensure that it is undertaken efficiently and effectively, and remains focused on achieving the appropriate outcome for the contractor.

The most appropriate personnel resources for such a dispute resolution team will depend on the stage of the project at which it is required. For dispute resolution by an adjudicator or DAB during the course of the project, a separate team as discussed above may be appropriate. Such a team will need to draw on the resources of the project execution team, however, the resultant disruption should be minimised.

If the final dispute resolution process such as arbitration or litigation is required after the project has reached practical completion, the most effective dispute resolution team will include some senior team members who were involved in the project management and execution. This will provide continuity and ensure that the corporate memory in respect of the project is available for planning and executing the steps to be taken in the dispute resolution. In addition, the dispute resolution team will need access to all the senior key personnel on the project whose work was relevant to the subject-matter of the dispute, in order to prepare witness statements and brief experts. For a major dispute, the time involvement of the key relevant personnel is likely to be significant, dependent of course on the extent of evidence required. Making such personnel available after the conclusion of a project may be challenging because of their importance on other projects, or because they are no longer employed by the contractor. However, the failure to present key evidence from an important witness can only harm a party's case. As a minimum, it is suggested that a workshop and debrief, with lawyers present, before the project team is demobilised and/or relocated, is essential on every project where a dispute exists or is likely.

It is suggested that there may be value in workshops comprising senior contractor personnel and independent experts. These workshops can review the claims and the evidence and formulate an opinion on how or whether claims should be prosecuted or defended. The value of this process is that it will enable the contractor to take a pragmatic view on the strength of each element of its case, and to concentrate its resources on those aspects of the case in which it has the best chance of success. Such workshops should be implemented at the earliest opportunity, and the workshop recommendations used to plan for the contractor's conduct of the dispute resolution process. It is important that this process is supervised or managed by the contractor's in-house and external lawyers in order to

ensure an appropriate framework is developed, efforts are focused appropriately and to maintain legal privilege in the materials produced.

8. Conclusion

There are many challenges for a contractor in successfully executing a design and construct contract without dispute. These start with careful preparation of the tender, not only the time and cost estimates on which the tender price is based, but assessment of the risks inherent in the proposed contract terms. Bespoke contracts in particular may require a contractor to assume unacceptable or unmanageable risks. Negotiation of appropriate contract terms in respect of scope, time, quality and cost, as well as the role of the project manager/superintendent, are the foundation from which the successful outcome of a project can be managed. Speedy and interim resolution of disputes that do occur, by an adjudicator or DAB, may be effective in enabling the parties to get on with the project without compromising their legal rights. Finally, some suggestions have been made to assist the efficient resolution of disputes that do ultimately result in arbitration or litigation.