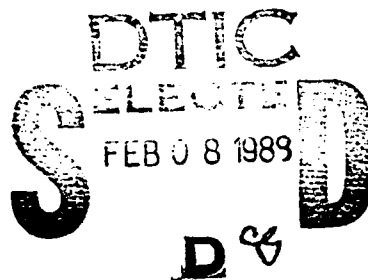


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ALTERNATIVE DISPUTE RESOLUTION IN THE
CONSTRUCTION PROCESS:
A COURSE OF STUDY FOR CONSTRUCTION MANAGERS

A Special Research Problem

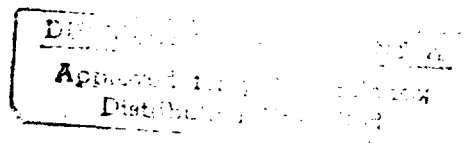
Presented to

The Faculty of the School of Civil Engineering
Georgia Institute of Technology

by

Douglas Gray Morton

In Partial Fulfillment
of the Requirements for the Degree of
Master of Science in Civil Engineering



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GEORGIA INSTITUTE OF TECHNOLOGY
A UNIT OF THE UNIVERSITY SYSTEM OF GEORGIA
SCHOOL OF CIVIL ENGINEERING
ATLANTA, GEORGIA 30332



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Douglas G. Morton

CHAPTER ONE

ALTERNATIVE DISPUTE RESOLUTION IN CONSTRUCTION

INTRODUCTION

In the construction process, owners, designers, contractors, suppliers, and construction managers must work as a team to deliver a project on time with the specified quality. Often, however, parties to the process are unable to place the team concept above individual profit motives, and consequently, disputes arise creating delays and additional costs for each participant [Hohns 79]. Work schedules are interrupted and valuable supervisory time is wasted while pursuing a settlement.

Disputes are common in the construction industry, and as the industry continues to grow (Figure 1), more efficient means of settling disputes are needed. Litigation in the courts has traditionally been the last resort for disputing parties to settle their differences, but that is changing. More and more parties to construction disputes are seeking or creating alternatives to litigation. Among the methods in this growing field known as Alternative Dispute Resolution (ADR) are arbitration, mediation, and mini-trials.

Statistics compiled by the American Arbitration Association (AAA), show a 156 percent increase in construction arbitration case filings from 1977 to 1987 (Figure 2). The 4,582 cases filed nationwide in 1987 represented over \$800 million in claims and counterclaims by

Value of New Construction Put in Place
1977 - 1987
 (in billions of 1982 dollars)

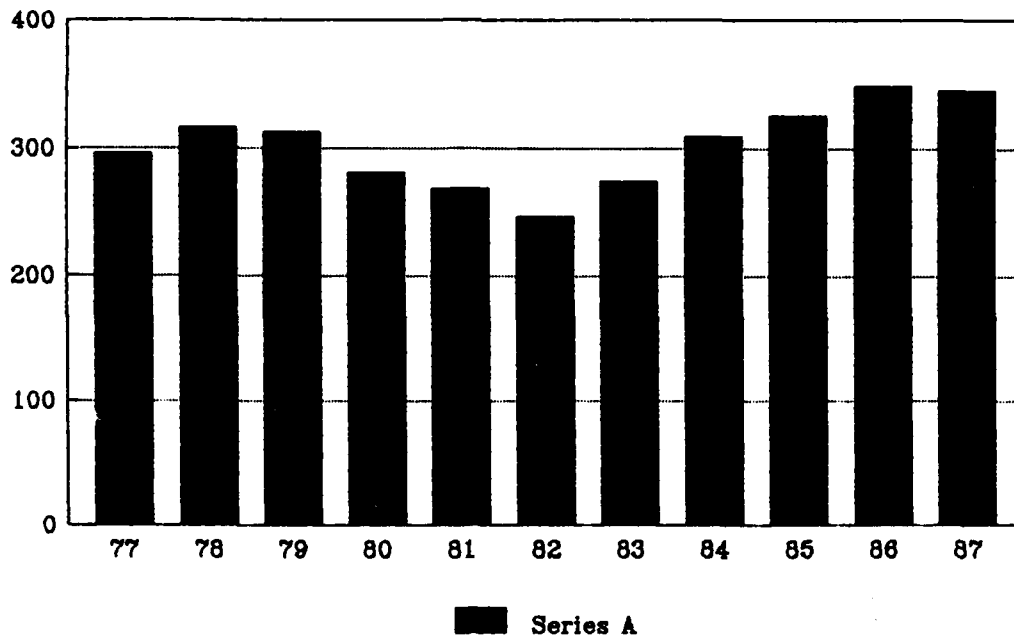


Figure 3. - From U.S. Dept of Commerce

American Arbitration Association
Construction Case Filings 1977 - 1987

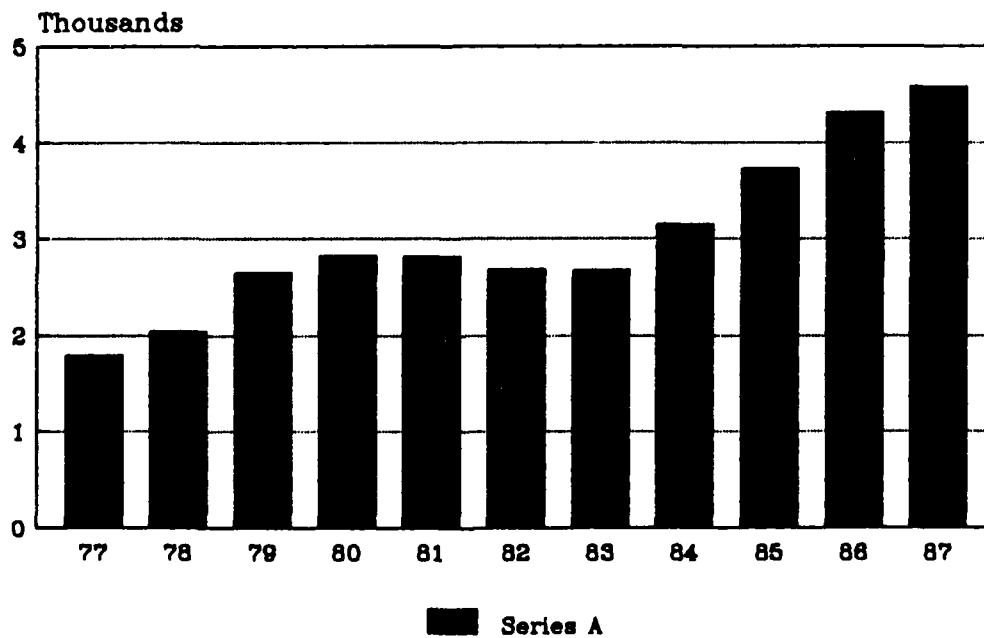


Figure 2.
 From American Arbitration Association

parties to the construction process. Arbitration, however, is only one of the many forms of ADR that have grown in use during the past decade.

Hailing the advantages of arbitration and negotiation as alternatives to courtroom litigation, Chief Justice of the Supreme Court Warren E. Burger urged the members of the legal profession to seek innovative means to solve disputes and relieve the overburdened courts. During his 1982 state of the judiciary report to the American Bar Association (ABA), he stressed "There must be a better way" to settle a dispute in today's increasingly litigious society [Burger 82]. The response has been an increase in the use of Alternative Dispute Resolution. ADR encompasses a myriad of methods for settling disputes. Although arbitration is the most publicized method, negotiation, mediation, and mini-trials play an important role in dispute resolution. Methods such as neutral expert fact-finding, mediation-arbitration and other "hybrid" methods are also used in construction disputes, but not as frequently.

Given the recent boom in the use of ADR methods, the time for "a better way" is here. The manager of the construction process must be fully prepared to make use of these alternatives for resolving disputes which adversely affect the profitability and productivity of his projects. The objective of this research is a proposed course of study entitled "Alternative Dispute Resolution in the Construction

Process" for the graduate level student in construction management.

BASIC DIFFERENCES BETWEEN ADR AND LITIGATION

With the exception of arbitration, where decisions are imposed by an expert neutral third party, each of the alternatives to courtroom litigation in the construction industry allows the disputants to formulate a logical, business-like decision. Although there is no procedure in arbitration for parties to participate in forming an agreement, filing for arbitration does not generally stop the dialogue between the parties. The parties must decide together on arbitrators, hearing dates, location, and any pre-hearing discovery, often promoting settlement conversations in the process. Courtroom litigation, however, often takes the disputants out of the settlement process, while lawyers, although well trained in the law, but often without a practical understanding of the construction process, argue the legal merits of the case before a judge with a similar lack of technical knowledge.

It can be argued that courtroom proceedings have an important place in the settlement of construction disputes, for example in a case involving legal precedent. Also, court litigation offers the right of appeal, while most ADR methods consider the compromising nature of the process as a deterrent to appeals. Eugene I. Pavalon, President of the

Association of Trial Lawyers of America, urged careful consideration of the trade-offs associated with each dispute before selecting alternatives to traditional litigation [Pavalon 87]. Once the trade-offs have been considered and the alternatives weighed, the informed construction manager will realize that ADR allows him to better control the formulation of a logical settlement that mitigates damages for all parties and often substantially reduce the costs of resolving disputes.

GROWTH OF ADR EXAMINED

The growth in the use of ADR in the construction process can only be examined subjectively. Possibly because of the private nature of ADR methods (public disclosure occurs only when awards are challenged in court), very few scientific studies have been conducted to compare ADR with traditional litigation. The AAA conducts periodic user surveys and publishes statistics on the use of arbitration (Figure 2). The American Bar Association has conducted a survey of attorneys who have participated in arbitration to gauge their satisfaction with the process [Stipanowich 88]. And recently, Robert E. Schenk conducted an arbitration satisfaction survey among recent participants in the process [Schenk 88]. The AAA has only recently begun promoting construction mediation services and has little statistical data compiled.

These studies indicate that a majority of the participants favored arbitration, but most wanted to see ways of improving its speed and cost in relation to litigation.

Alternative Dispute Resolution methods offer several perceived advantages over litigation. The continued expansion of ADR can be attributed to the following advantages:

1. Usually reduced cost and almost always reduced time to reach a settlement.
2. Privacy of proceedings (no public record).
3. Disputants involved in formulation of settlement agreement (except in arbitration).
4. No excessive pre-trial proceedings.
5. Neutral third party usually has technical subject expertise.
6. Flexibility of rules and procedures. Parties involved in setting or modifying guidelines.
7. Finality of decisions.
8. Preservation of business relationships due to softening of adversarial roles (win-win).

As the field continues to gain in popularity, disputants and administrators of the process must endeavor to protect the flexibility of ADR and prevent it from becoming informal court litigation. ADR is only limited by the imagination of the participants.

SCOPE OF RESEARCH

Is today's construction manager prepared to utilize ADR to his advantage in keeping his project on time and within specified cost limitations? What is the role of the construction manager in ADR? How can the inexperienced construction manager benefit from a knowledge of ADR processes? In the wake of expanding use of ADR, the education of construction managers in the field has not progressed. Several accredited Engineering Schools offer a construction law course at the graduate or undergraduate level, but few of these courses mention ADR. The education of the construction manager in the various practical methods of ADR is becoming increasingly important.

In proposing a curriculum in ADR for the graduate level construction manager this research report will address several pertinent topics. Chapter two examines dispute methods common to the construction industry and provide guidelines for selection of an appropriate ADR method. Chapter three will explore the role of the construction manager in the construction process with particular emphasis on his role in dispute prevention and settlement. Chapter four will focus on ADR education, and provide a sampling of how law and business schools are presenting the topics. The course syllabus is presented in Chapter five and specific teaching resources are suggested. Conclusions and Recommendations for further study are offered in Chapter six.

CHAPTER TWO

ALTERNATIVE DISPUTE RESOLUTION EXPLAINED

INTRODUCTION

Alternative Dispute Resolution encompasses all methods of resolving disputes outside of the courts. The most widely used forms of ADR in the construction industry are arbitration, mediation, negotiation, mini-trials, and neutral fact finding. This chapter will examine the characteristics of each process and provide important considerations in the selection of an appropriate dispute resolution method. Where possible, ADR methods will be compared to court litigation. Equipped with a clear understanding of the available alternatives to litigation, the construction manager can pursue more rational courses of action in the event of a dispute.

AN OVERVIEW OF THE PROCESS

According to India Johnson, Regional Vice President of AAA in Atlanta, dispute resolution can be described as a three step process [Johnson 88]. When a dispute arises, affected parties should seek to resolve their differences through negotiation. Principals to the dispute should attempt to address the facts of the situation and develop a mutually agreeable solution. If negotiations fail to solve the argument, the parties should enlist the services of a mediator to assist them in resolving the dispute. The

mediator is a neutral third party who helps to define the issues and encourages the disputants to seek a mutually beneficial solution. If mediation does not bring about a settlement the parties may file for arbitration or litigation.

One to three arbitrators chosen by the disputing parties preside over a hearing as representatives from each side present evidence and witnesses to support their case. The arbitrators render a binding award that can be confirmed by the courts if the losing side refuses to comply with the decision. Ms. Johnson stressed that although this was the preferred order in the dispute resolution process some parties forego serious negotiation and go straight to trial litigation. As most construction contracts include a clause for arbitration, litigation is not an option unless both parties waive the clause and agree to go to court.

Most ADR techniques seem to have two common threads. Each process has flexible rules and procedures and each method seeks to minimize the cost and time required to reach an agreement. The flexibility built into ADR allows the disputants to tailor each method to meet their needs. Conversely, court litigation is very strict in its procedural rules and lawyers representing the parties can use these rules to drag out proceedings at great expense to the litigants. The cost and time savings inherent in ADR methods are realized because most disputes are treated like business

decisions, where the axiom "time is money" is taken literally. For example, parties eager to settle their dispute but gridlocked in negotiations, may use a mediator to help focus the issues and guide the parties to a quick and amicable settlement. Such a procedure can be completed in a matter of days.

Few figures are available that compare the cost and time of ADR methods to court litigation, however, only arbitration seems to rival litigation in this area. The ABA Forum committee on the Construction Industry and the ABA Construction Litigation Division sponsored a survey in 1985 and 1986 on the attitudes towards commercial arbitration [Stipanowich 88]. The results showed that attorneys and clients generally favored arbitration except when the amount of the claim became large. In cases involving less than \$250,000, about 56 percent of the 530 respondents agreed that arbitration was more economical than a jury trial; about 14 percent thought the opposite.

CONSIDERATIONS FOR SELECTION

While only the disputants can determine which resolution process best suits their needs, a variety of considerations appear relevant [Goldberg 85]. First is the relationship between the disputing parties. In the construction process, most business relationships are ongoing. A designer may work with the same owner on several projects, a reputable

contractor who provides a timely quality product will be in big demand, a reliable subcontractor will be utilized on job after job, and a construction manager who effectively manages a project will be sought by designers, owners, and contractors. Given the nature of these continued relationships in the construction process, a settlement worked out through compromise and discussion, accounting for the value of the continued relationship, will be more readily acceptable than an imposed solution by an arbitrator or a trial judge which may tend to polarize the two parties.

Another consideration in selecting the appropriate process is the nature of the dispute. The distinction should be made between cases requiring a definitive precedent provided by a court decision and those which merely attempt to allocate damages. The latter is typically the case in the construction process, where the determination of how damages are calculated is often the basis of the dispute. Again, negotiated settlements, where all parties to the dispute are involved in formulating the agreement, help preserve valued business relationships.

The amount of the claim is thought to be a good indicator of the appropriate method of dispute resolution, however, Goldberg cautions disputants of choosing an ADR method based solely upon the amount of the claim. Figures provided by the AAA and data compiled in the ABA survey tend to make the inference of increasing complexity with the

amount of claim, however, this is not necessarily the case in all disputes (Table 1). Cases involving large sums of money may be quite simple in nature and be settled quickly, whereas a small claim may involve very complex issues and take years to solve.

Table 1. - Processing Times
Filing to Award in Construction Arbitrations
(in days)

Claim Amount	No. of Cases	Average	Median
\$ 0 - 15,000	802	162	116
15,001 - 50,000	588	235	175
50,001 - 100,000	239	299	256
100,001 - 500,000	254	402	318
500,001 - 1,000,000	59	505	441
Over \$1,000,000	44	535	444
Undetermined	80	271	209
Total	2,066	250	177

The average is computed by adding all individual case proceeding times and dividing by the number of cases.

The median is the point at which half the cases take less time to process from filing to award, and half take more.

Source: American Arbitration Association

As noted previously, speed and reduced cost are elements common to most ADR methods. For example, the AAA has endeavored to enhance the attractiveness of arbitration by formulating expedited procedures for claims under \$15,000 and preparing guidelines for expediting larger complex

construction cases. Mini-trials were introduced in the late 1970's to reduce the time required to resolve a dispute by involving high ranking key decision makers from each party in the resolution process. Pavalon warns the construction manager of the need to weigh the ratio of costs to stakes [Pavalon 87]. Short term goals to save on costs can blind the well intentioned manager to important facts of the dispute. As most ADR methods forgo extensive discovery (the sharing of evidence between parties prior to legal proceedings in court) periods in an attempt to reduce costs and save time, the disputant may find himself learning of damaging evidence during ADR proceedings.

Finally, one must consider the power relationship between the parties. When one party has little effective bargaining power in a dispute, he may choose a dispute settlement method that relies upon principle not power to determine the outcome. This type of forum is more often found in arbitration and court litigation.

The considerations addressed above can be weighed with the desire of the parties to keep their dispute private avoiding adverse publicity. Although an intangible factor, adverse publicity may prejudice a firm in the eyes of others in the construction process as a company typically embroiled in controversial claims.

CHARACTERISTICS OF ADR METHODS

Each ADR method has distinct characteristics that make its use advantageous in certain situations. Although all ADR processes have flexible rules and procedures, a closer examination of each of the most commonly used construction dispute resolution techniques will enable the construction manager to assess the applicability of each method to a given situation. Tables 2 and 3 present a comparison of the most frequently used forms of dispute resolution in the construction process.

NEGOTIATION

Every construction manager should possess fundamental negotiation skills to be successful in performing his role in the construction process. He negotiates on all facets of a project with all levels of personnel to insure that each member of the construction team is pursuing the successful completion of the project. Negotiation is the most common form of dispute resolution.

The construction manager is most likely to negotiate time, cost, and quality. Although most construction projects have specific prearranged standards for all three of these items, no contract can allow for every situation and thus disputes arise. The construction manager may work individually or as a member of a team in negotiations. They may be loose and unstructured like a conversation in the

Table 2. - Dispute Resolution Processes a

CHARACTERISTICS	Litigation	Arbitration	Mediation
Voluntary/ Involuntary	Involuntary	Voluntary	Voluntary
Binding/ Nonbinding	Binding, subject to appeal	Binding, subject to appeal on limited grounds	If agreement, enforce- able as contract
Third Party	Imposed, third-party neutral decisionmaker, generally with no specialized expertise in dispute subject	Party-selected third- party decisionmaker, usually with specialized subject expertise	Party selected outside facilitator, usually with specialized subject expertise
Degree of Formality	Formalized and highly structured by rigid, predetermined rules	Procedurally less formal; procedural rules and substantive law may be set by parties	Usually informal, unstructured
Nature of Proceeding	Opportunity for parties to present proofs and arguments	Opportunity for parties to present proofs and arguments	Unbounded presentation of evidence, arguments and interests
Outcome	Principled decision, supported by reasoned opinion	Sometimes principled decision supported by reasoned opinion; sometimes compromise without opinion	Mutually acceptable agreement sought
Private/Public	Public	Private, unless judicial review sought	Private

aSource: from (Goldberg 85)

Table 3.- Dispute Resolution Methods a

CHARACTERISTICS	Negotiation	Mini-Trial	Neutral Expert Fact-Finding
Voluntary/ Involuntary	Voluntary	Voluntary	Voluntary or involuntary under FRE 706
Binding/ Nonbinding	If agreement, enforce- able as contract	If agreement, enforce- able as contract	Nonbinding but results may be admissible
Third Party	No third-party facilitator	Party-selected outside facilitator, usually with specialized subject expertise	Third-party neutral with specialized subject expertise; may be selected by the parties or the court
Degree of Formality	Usually informal, unstructured	Less formal than litigation; rules of procedure may be set by parties	Informal
Nature of Proceeding	Unbounded presentation of evidence, arguments and interests	Opportunity and respon- sibility to present summary proofs and arguments	Investigatory
Outcome	Mutually acceptable agreement sought	Mutually acceptable agreement sought	Report or testimony
Private/Public	Private	Private	Private, unless disclosed in court

aSource: from (Goldberg 85)

field involving the interpretation of plans and specifications or they may be highly formalized detailed discussions regarding cost and time adjustments for a changed site condition.

While there are no established rules and procedures for negotiating, countless books and articles published on the subject suggest the need to follow certain fundamentals. They stress the need for a thorough knowledge of the facts, preparation of a negotiation plan, and active listening during the negotiations.

In their highly acclaimed book "Getting to Yes", Roger Fisher and William Ury offer the following five basic points in defining their principled approach to negotiation [Fisher 81]:

1. Separate the people from the problem. Negotiators should see themselves attacking the problems in dispute, not each other.

2. Focus on interests not positions. Your positions are what you want. Your interests are why you want them. Focusing on interests may uncover the existence of mutual or complimentary interests that will make agreement possible.

3. Invent options for mutual gain. Even if the parties' interests differ, there may be bargaining outcomes that will advance the interests of both.

4. Insist on using objective criteria. Set mutually agreeable guidelines for governing the outcome of negotiations. For example, parties to a construction contract change order may agree on how items of negotiation will be priced.

5. Know your Best Alternative to a Negotiated Agreement. Where do you stand if negotiations fail to reach an agreement. Are you better off not negotiating.

Some typical negotiation situations are included as part of the role play exercise in chapter 5.

MEDIATION

When negotiations break down the disputants may seek the services of a trained mediator. Unlike an arbitrator or a judge, the mediator cannot impose a settlement on the parties. His role is one of facilitator, stimulating discussion and compromise, assisting the parties to reach their own agreement.

In "The Art and Science of Negotiation", Howard Raiffa gives the following explanation of how the mediator assists the parties in resolving disputes [Raiffa 82]:

1. By establishing a constructive ambience for negotiation, he frees the parties to openly discuss their needs and positions.

2. By collecting and judiciously communicating selected confidential material, he may open up new ground for settlement.

3. By helping parties to clarify their values and to derive responsible reservation prices, he gets them to envision reasonable compromise solutions.

4. By deflating unreasonable claims and loosening commitments, he helps parties to appreciate the other's position.

5. By seeking joint gains and encouraging disputants to be more creative in their search for a solution, parties tend to take ownership of the solution and are more apt to adhere to the eventual agreement.

6. By keeping negotiations going when parties are unwilling to appear weak by showing their desire to settle.

7. By articulating the rationale for agreement, he clears up misunderstandings and insures that the parties are agreeing to the same terms.

The structure of a mediation depends upon the experience of the mediator and the desires of each party. Trained mediators, experienced in construction, are available through a number of organizations and are compensated at a rate agreeable to the parties. The process is private and nothing

that transpires during mediation is intended to prejudice arbitration or litigation proceedings if the mediation is unsuccessful.

Appendix A gives some actual mediation case examples.

ARBITRATION

"Arbitration is the process by which parties voluntarily agree to have their dispute resolved by an arbitrator, and they further agree that the decision or award of the arbitrator will be binding upon them" [Domke 68]. The vast majority of construction arbitration cases are administered by the AAA using the Construction Industry Arbitration Rules developed by a joint committee of engineers, architects, contractors, and sub-contractors. Most private sector construction contracts include a clause for arbitration in accordance with the AAA rules of all disputes arising out of or relating to the contract.

In an arbitration hearing, a panel of one to three arbitrators selected by the disputing parties hears testimony and examines evidence concerning the dispute and upon completion of the hearing renders a binding award. Awards may be appealed to the courts only in the case of fraud or misrepresentation by the arbitrators. The award can be confirmed by the courts in the event the losing party refuses to comply with the arbitrator's decision.

As stated earlier, arbitration more closely resembles

court litigation than any of the other ADR methods.

Disputants are usually represented by legal counsel who sometimes use the same legal maneuvers and procedures as they do in court. Witnesses are called to testify and are cross examined. Depending upon state statutes, arbitrators and witnesses may be required to take an oath before the hearings commence. Evidence deemed relevant by the arbitrator may be presented by the parties.

Although arbitration closely resembles litigation in some respects, it has distinct advantages.

1. The arbitrator usually has subject expertise and does not require detailed explanations of the technical aspects of the case.

2. Parties may select the time and place of the hearing without regard for court backlogs.

3. The decision of the arbitrator is final. No appeals procedure to a "higher" arbitrator is allowed.

4. The proceedings are private and avoid unwanted publicity.

5. On larger more complex projects, arbitration panels may be pre-selected to expedite claims. This method is being utilized by the State of Washington Transportation Department on the complicated construction of Interstate 90 [Kohnke 88].

Some arbitration cases are included as appendix B.

MINI-TRIALS

The Center for Public Resources, a leader in the use of mini-trials defines the process as:

"...really not a trial in the conventional sense but a highly structured settlement negotiation. It is voluntary, confidential, and non-binding.

Although there is no set formula for a mini-trial, it typically involves a stay of court proceedings, an abbreviated period of limited discovery, a one or two day "information exchange" at which attorneys for each side present their best case to both parties and an eminent "neutral advisor," and a period of settlement negotiations between the parties. The neutral advisor may be called upon to give his opinion as to how the court would decide the dispute..." [Franklin 83].

The success of the many trial can be attributed to the following factors [Fine 85]:

1. Like most ADR methods, the mini-trial's rules and procedures are flexible to meet the needs of the parties and the character of the dispute.

2. The parties select a neutral advisor based upon his expertise in the subject of the dispute.

3. Because the bitterness of litigation is avoided, important business relationships are preserved.

4. Similar to mediation, the mini-trial focuses on issues relevant to the dispute.

5. Savings in legal expenses can be substantial compared to litigation. Some large cases have been settled within a few weeks, whereas litigation often takes years.

6. "The mini-trial produces rational results and offers a range of settlement possibilities far broader than the limited remedies available from a judge or jury."

7. The proceedings can be made confidential.

As with all dispute resolution methods, the selection of the mini-trial should be based upon rational criteria.

Goldberg provides a detailed discussion of the following four factors [Goldberg 85]:

1. Stage of the dispute
2. Types of issues at the heart of the dispute.
3. Motivations and relationship of the parties
4. Costs associated with staging the mini-trial

Several mini-trial cases are included as appendix C.

NEUTRAL EXPERT FACT-FINDING

Used primarily when a case consists of complex scientific or technical issues, the neutral third party expert can sift through the bog of confusing information and present a more logical summary of the case to the disputants. This process may be used as tool in other ADR methods or sometimes in litigation proceedings to clear up the issues.

Typically, parties to the dispute may either agree with all of the neutrals findings or reject the report, but may not "pick and choose" from the facts to suit their case. The report may convince the losing party that a decision by a court, which can utilize the fact finder under the Federal Rules of Evidence (FRE), may be no better and possibly worse than compromising in ADR. The eye opening effect of the recommendation and the non-binding nature of the fact finder's report make this procedure an attractive dispute resolution technique.

CHAPTER THREE

THE MANAGEMENT OF CONSTRUCTION DISPUTES

INTRODUCTION

As discussed in the previous two chapters, ADR's use in the construction industry has grown dramatically. Selecting the most appropriate method for dispute resolution involves several important considerations and the construction manager, acting as an agent to the owner, must be able to assist him in making a well educated decision. This chapter examines the role of the construction manager in the construction process and highlights his participation in the management of project disputes. Attention will also be given to the avoidance of claims in construction.

CONSTRUCTION MANAGEMENT EXPLAINED

The Construction Management Association of America defines construction management (CM) as follows: [CMAA 86]

"The process of professional management applied to a construction program from project conception to completion for the purpose of controlling time, cost, and quality."

It is important to understand that construction management is not a recognized profession, but rather it is one approach to construction project delivery. A comprehensive CM contract with an owner may incorporate six major functional areas, as described below [Stone 85]:

Cost Management - The CM provides reasonable preliminary estimates to assist the owner and the architect engineer (AE) in planning and design. He provides value engineering to insure that cost effective methods are utilized. The CM acts as the owner's agent in negotiating changes in the work. Although he typically does not have the final say in cost matters, he has the responsibility to control construction costs for the owner.

Scheduling - The CM provides preliminary schedules for planning and updates the schedule as the design progresses. He seeks to identify delays in the construction process and mitigate their effects on the overall project.

Design Review - The CM provides an unbiased prospective in the design review phase of the project. He assists the AE in constructability assessments and seeks to minimize risk and potential conflict in the construction process.

Bid Packaging - The CM determines divisions of the work and coordinates bid packages in accordance with the divisions. He advises the owner on qualifications of bidders and may oversee the bidding process.

Onsite Management - The CM is responsible for conducting quality inspections to insure compliance with plans and specifications, coordinating separate contracts, monitoring each phase of the work and determining if the project is on schedule, arranging field and laboratory tests, reviewing

progress payments and advising the owner, and recognizing change orders and reviewing change proposals.

Claims Management - The CM develops a claims management program as part of the onsite management activity that includes avoidance, mitigation, and resolution of disputes.

AVOIDING CLAIMS

Claims in the construction process can generally be categorized into five distinct causes [Diekmann 85]:

1. Errors and omissions in the design phase.
2. Owner generated changes in the work.
3. Differing site conditions than shown on the plans.
4. Unusually severe weather.
5. Value engineering proposals.

Management of claims involves all of the functional areas previously discussed. Every service provided by the CM has an affect on claims avoidance, and his close scrutiny of the construction phase acts to mitigate disputes as they arise. Clearly the CM who has a thorough knowledge of dispute resolution techniques and sound negotiating skills to compliment his construction experience will be more effective in fulfilling his role.

Claims avoidance involves the CM from preliminary planning through acceptance of the completed project. During the design phase, the CM helps to clarify ambiguous contract

language and identifies areas which have the greatest potential for changes during construction. He may suggest specific contract language or note items that require unit price bidding in an effort to reduce risks for the owner and the contractor.

Preconstruction conferences offer an ideal setting for the construction manager to assert his influence on a project. By displaying a thorough knowledge of the project and a cooperative spirit, the CM may reduce the tendency for the parties to form adversarial relationships. Another important function of the CM during this meeting is to clarify significant contract provisions pertaining to construction schedules, progress payments, contract interpretations, change orders, and settlement of disputes.

The CM's role in disputes mitigation is fulfilled through inspection, coordination, and documentation during the construction phase of the project [Stone 85]. He must be familiar with all phases of the work and continually inspect the work for compliance with the project documents. Each inspection should be documented and discrepancies should be immediately addressed in writing to all concerned parties.

Coordination of each phase of the work minimizes interference between contractors. This may involve negotiating schedule impacts with two contractors who require the same work space at the same time or the equitable allocation of onsite material storage space. The CM should

actively pursue prompt approval of shop drawings, contract interpretations required by the designer, and change order authorization. He must constantly be aware that his actions or inactions may become the grounds of a contractors claim.

The key to the CM's successful mitigation of disputes lies in thorough documentation of the project. He must maintain accurate records of daily weather, inspection reports, change orders, minutes of meetings, schedule updates, material deliveries, submittal logs, and laboratory and field test results. These records may act as a deterrent to contractor claims and can be helpful determining damages in the event of changes or delays.

Despite all of the CM's efforts to the contrary, the contractor may still submit claims. When claims are submitted, the CM must act expeditiously in advising the owner of appropriate courses of action. Upon acknowledging receipt of the claim, the CM must validate the information using up to date project documentation, seeking clarification from the contractor where needed. Next, he must interpret the claim, analyzing schedules and inspection records to determine the extent of damages, determining a method for just compensation. Finally, the CM provides a recommendation to the owner on the disposition of the claim. If the owner rejects the claim, the contractor may continue to pursue the matter through litigation or arbitration, if provided in the contract. Again, the CM with a thorough of ADR can advise the owner of his options to avoid costly litigation.

SKILLS REQUIRED BY THE CM

To be successful, today's construction manager must receive well rounded education and training both in school and on the job. He must be concise and unambiguous in both written and oral communications. He must be a skillful negotiator, able to maintain a balanced perspective in heated disputes. He must be a consummate organizer in order to manage several ongoing tasks at once. Most of all, the successful CM is a good problem solver with the ability to assimilate facts and draw sound conclusions.

In his involvement with dispute resolution, he will call upon all of these skills time and again.

CHAPTER FOUR

ALTERNATIVE DISPUTE RESOLUTION EDUCATION

INTRODUCTION

Although the actions of the construction manager have a significant impact on the quantity and severity of disputes in the construction process, generally, his formal education does not prepare him to manage or participate in the resolution of disputes. Construction industry interest, however, is on the rise. More than a dozen articles on ADR have been published in various American Society of Civil Engineering (ASCE) journals over the past three years. The membership roster of the National Construction Industry Arbitration Committee includes all of the major construction engineering related societies (see appendix D). A recent survey of 30 construction management graduate students, taken after a seminar on Alternative Dispute Resolution, indicated that while only 3 of the respondents have had any formal training in negotiation or dispute resolution 28 of them indicated a desire to take an ADR course. ADR education has taken hold in many law and business schools, but the topic has yet to gain the attention of engineering educators.

This chapter will examine current course offerings in ADR, noting where and how these courses are taught. How the lack of ADR knowledge affects the construction manager and how he and the industry can benefit from the study of dispute resolution topics will also be addressed.

ADR IN LAW SCHOOLS

Of the 175 ABA accredited law schools, 111 presently offer ADR courses [Raven 88]. Of course, not all of these courses are devoted to construction disputes, but a wide sampling indicated that many of these courses concentrate on commercial disputes of which construction is a part. The objective in analyzing law school curriculum is twofold. First, an examination of courses provides some insight into the range of topics being taught. Second, information on how each course is presented is useful in the preparation of the proposed course for construction managers.

A sampling of 18 course catalogs from law schools around the United States, revealed that most of the ADR courses being taught do not address one particular field of interest. Three schools did, however, concentrate on commercial disputes with the law school at Duke University offering a course in commercial arbitration focusing on construction disputes. A telephone conversation with the instructor of the Duke course, construction lawyer C. Allen Foster, indicated that he was preparing a course covering all forms of ADR related to construction disputes. Appendix F provides a list of the schools reviewed.

In 83 % (15 of 18) of the ADR law school courses, role play exercises were included as part of the course work. Students were required to prepare positions for negotiation and mediation exercises and to prepare to present a case

before an arbitration panel. The stated intent of these exercises is to familiarize students with each particular process and afford them the opportunity to learn and enhance the communication skills necessary to participate in dispute resolution. Students are critiqued by faculty, student observers and participants, and must provide self evaluation of their presentations.

ADR IN BUSINESS AND PLANNING SCHOOLS

Many educators at schools of business, planning, and public policy are recognizing the need to offer graduate level students instruction in ADR methods. Most prevalent among the courses offered are those in negotiation and conflict management. A survey of 20 schools in this category showed that 11 of them concentrated on negotiation as the primary conflict management tool. Many of the courses also devote time to mediation.

Skill building exercises were indicated in 65 % of the courses offered. The emphasis is placed on avoiding conflict or mitigating the effects of conflicts as they arise.

WHY TEACH ADR TO ENGINEERS

Several recent articles on the subject of construction management education stressed the need for increased instruction of basic communication skills, more specifically implying written versus oral communications. But only one

author mentioned the need to offer a course in negotiation and conflict resolution [Riggs 86].

A phone survey of construction management educators around the country offered mixed reactions to the offering of a full quarter course in ADR in the construction process. Some educators expressed the need to cooperate with management schools to meet the need for exposure to dispute resolution topics. One educator expressed the need for more emphasis on disputes prevention methods, citing ASCE's recent publication of "Quality in the Constructed Project" as an appropriate guide. While one professor of construction management noted that in semester oriented programs, the topic of ADR could be included with legal aspects of contracting to provide a good foundation for legal problems and their impact on the management of the construction project.

An examination of 26 accredited construction management program catalogs revealed that 21 of them offered some form of construction related law course but only 1 of them addressed the specific use of any ADR methods.

Education of the construction manager in the field of disputes and dispute resolution is being accomplished by several firms like the R.S. Means Company, and McGraw Hill who offer continuing education seminars in negotiation, claims avoidance, and disputes resolution using alternatives to litigation. The construction manager also may learn

through personnel experiences in court litigation, failed negotiations, or contracted arbitration.

It is important to note who controls dispute resolution processes in construction. Lawyers traditionally represent both owners and contractors in court litigation. As discussed in chapter one, their influence on the settlement of disputes is such that the actual disputants are removed from the process. Increasingly, arbitration proceedings are being manipulated by lawyers, becoming more formalized and rigid as they import courtroom procedures into the process. Construction managers must be taught to recognize these manipulations and be capable of asserting some control in resolving construction disputes. In order to facilitate this swing of control, the construction manager needs both education and experience in managing disputes.

CHAPTER FIVE

THE COURSE PROPOSAL

INTRODUCTION

This chapter presents the proposed course of study of Alternative Dispute Resolution in the construction process. The objective of the course is to provide the prospective construction manager with an overview of the origination and prevention of construction disputes and the means of settling those disputes outside of the courts. What is taught will share equal significance with how it is presented. The construction management student must be challenged with new ideas, he must be afforded the opportunity to practice some of the techniques of dispute resolution, and he must be exposed to a broad spectrum of ADR uses. This course, although focused on the uses of ADR, will also emphasize the construction manager's role in avoiding and mitigating disputes.

Much time in and out of class will be devoted to simulation exercises or role plays of various ADR techniques in an effort to enhance the basic negotiation skills needed to resolve disputes. Students will be required to participate either as negotiators or observers in each exercise. The role play is designed as a continuing exercise using a one project scenario throughout to demonstrate the realm of possible disputes on any given project. It will be described in detail as part of the syllabus and appendices.

SYLLABUS

The course is designed to be taught in 20 ninety minute periods over the course of one full quarter. One instructor should administer the class, presenting lectures and coordinating guest speakers and role plays. Guest speakers should be used as often as practical to offer the students a well rounded perspective of the subject.

The following syllabus offers a general overview of the topics to be presented:

**A Proposed Course of Study
for the Graduate Construction Manager
entitled
Alternative Dispute Resolution in the Construction Process**

Syllabus

Class 1: Introduction to Alternative Dispute Resolution

Objective: State the objectives and goals of the class. Clear up all administrative matters such as class assignments and grading policies. Introduce the idea of Alternative Dispute Resolution and relate it to the construction process.

Topics to cover:

Alternative to what?

History of ADR methods.

Reason for teaching ADR to construction managers.

Class 2: The construction manager's role in project delivery

Objective: To provide the student with an overview of the various roles of the construction manager in delivering the completed project to the owner.

Topics to cover:

Describe the different methods of project delivery.

Who can the construction manager work for?

What are his responsibilities?

Class 3: Construction disputes and resolution methods

Objective: Explain the nature of construction disputes, how to prevent them, and how to resolve them.

Topics to cover:

Frequency of disputes in construction projects.

Costs of disputes. Money. Delays.

What factors lead to disputes? Controllable?

Who is involved in disputes?

How to prevent disputes or lessen their frequency?

Class 4: The Use of Lawyers

Objectives: To introduce the role of the lawyer in the construction process. A possible guest lecturer from a large construction company could offer a perspective of the use of lawyers as a benefit to a company.

Topics to cover:

When to use a lawyer?

How to select a lawyer?

How to control legal costs?

Class 5: Introduction to Negotiation

Objective: To examine the basic concepts of negotiating.

Introduce different negotiating philosophies and to note where the construction manager uses negotiation skills.

Provide role play information to teams.

Topics to cover:

When where and how to negotiate?

Principled versus positional negotiation.

Getting to Yes by Fisher and Ury

Class 6: Negotiation preparations

Objectives: Provide an overview of how to prepare for negotiations. Discuss the effects of negotiations on existing business relationships and the importance of knowing the other sides position.

Topics to cover:

Team versus individual negotiations.

Effective listening.

Body language in negotiations.

When to walk away?

Class 7: Negotiation role plays

Objectives: Provide students an opportunity to learn and enhance negotiating skills through active participation and observation of simulated negotiations.

Topics to cover:

Set ground rules for exercise.

Explain each negotiation exercise to observers.

Allow time for feedback and evaluation of exercise.

Class 8: Negotiation role plays

Objectives: Provide students an opportunity to learn and enhance negotiating skills through active participation and observation of simulated negotiations.

Topics to cover:

Set ground rules for exercise.

Explain each negotiation exercise to observers.

Allow time for feedback and evaluation of exercise.

Note: Depending upon class size the number and time limits of exercises can be adjusted.

Class 9: Introduction to Mediation

Objectives: Introduce students to the concepts and characteristics of mediation. Expose them to existing rules and procedures of mediation and its use in dispute resolution. Cite case studies as available. Utilize the AAA construction mediation film as an illustrative example.

Provide role play information to teams.

Topics to cover:

History of use in construction.

When to use mediation?

Discuss sample mediation clauses.

Time and cost.

Preparations required for mediation

Settlement / Agreement enforceability?

Who acts as a mediator? How to select?

Good and bad mediators, what techniques work?

What benefits are derived from mediation if no
settlement is reached (what to look for during
mediation)?

Class 10: Mediation role plays

Objectives: Provide students the opportunity to learn mediation skills through active participation and observation of simulated mediations.

Topics to cover:

Set ground rules for exercise.

Explain mediation exercise to observers.

Allow time for feedback and evaluation of exercise.

Class 11: Mediation role plays

Objectives: Provide students the opportunity to learn mediation skills through active participation and observation of simulated mediations.

Topics to cover:

Set ground rules for exercise.

Explain mediation exercise to observers.

Allow time for feedback and evaluation of exercise.

Note: Depending upon class size the number and time limits of exercises can be adjusted.

Class 12: Introduction to Arbitration

Objectives: Introduce students to the concepts and characteristics of arbitration. Expose them to existing rules and procedures of arbitration and its use in dispute resolution. Cite case studies as available. Provide role play information to teams.

Topics to cover:

History of use worldwide and in construction.

NCIAC / AAA rules and procedures.

Advantages and disadvantages of process.

How to choose arbitration?

Sample arbitration clauses. Tailoring clauses.

Time and cost.

Awards, binding or non-binding?

Ability of parties to appeal award.

Confirmation of awards by the courts.

Class 13: Arbitration role play

Objectives: Provide students a hands on lesson in case preparation, panel selection, and case presentation. The

arbitration panel should include a trained arbitrator and two students arbitrators.

Topics to cover:

Set rules and procedures for role play.

Class 14: Arbitration role play continuation

Objectives: Students will complete case presentations to the arbitration panel. Arbitrators will render an award and moderate class discussion of the case.

Topics to cover:

Format of award.

Power of arbitrators.

Appeals process (limited avenues).

Class 15: Mini-trials and other participatory methods

Objectives: Expose the students to the mini-trial concept and the other available participatory methods of dispute resolution. Cover neutral expert fact finding and mediation-arbitration. Note case studies where available.

Topics to cover:

How do disputants arrive at the alternative method?

Discuss the lack of formal rules and procedures.

Outcome of these forms of ADR.

Class 16: The future of Alternative Dispute Resolution

Objectives: Explore future uses of ADR and discuss why the field has emerged in the last decade. Examine selection criteria for ADR methods. Opportunity for guest lecturer.

Topics to cover:

Note who controls ADR processes.

Does ADR have backing of legal community?

Is ADR economical?

Are ADR processes fair? Split the baby mentality?

Provide guidelines for selecting an ADR method.

Class 17: The lawyer's role in ADR

Objectives: Invite a construction lawyer with experience in ADR to discuss his role in the process. Focus on the reasons for using ADR instead of the courts and the reasons for using the courts instead of ADR.

Topics to cover:

Why are there alternatives?

Why the increased use?

Are disputants getting a fair deal in court?

Costs out of control?

Process of court litigation from file to appeal.

Protection offered by the courts.

Is justice served by "all or nothing" awards?

Class 18-20: Case study presentations

Objectives: Promote independent thinking and research into a specific case involving the use of ADR in construction. Allow the student to choose a case study and structure a 5 to 10 minute oral presentation. Provides class with a well rounded view of uses of ADR in construction.

Note: Instructor should monitor selection of cases to insure even coverage of as many ADR methods as possible.

ROLE PLAY SCENARIO

The use of role plays is critical to the development of basic negotiating skills. In order to add continuity to the class and to underscore the possibility of several disputes on any given project, the following scenario is presented:

Owner profile:

Name: Resorts Development Corporation of Miami
Specialty: Resort hotel and golf course development
History: In business since 1978
Principals: William Mudd and Buzz Jackson

Resorts Corporations' designers have in-house construction management services. Ben Morrell is the CM.

Contractor profile:

Name: C. A. Jones and Sons Inc. of Athens, Ga.
Specialty: Hotels and light commercial
History: In business since 1948

Principals: C. A. Jones, Jr. and Bob Jones

Subcontractor profile:

Name: Tonka Earthmovers Inc. of Atlanta
Specialty: Earthmoving and golf course construction
History: In business since 1967
Principal: George Tonka

Neighborhood profile:

Name: Allatoona Estates Homeowners Association
History: Homes from \$200,000 established 1982
Principals: Mary Smith and Bill Adams

Resorts Development Corporation has purchased 1000 acres adjacent to Allatoona Estates for the purpose of building a resort hotel and golf course on Lake Allatoona. C.A. Jones has been hired as the general contractor and in turn he has hired Tonka Earthmovers to prepare the site for the hotel and construct the golf course. The homeowners association objected to Resorts Development's plans for the hotel and golf course for fear it would drive up their taxes and cause overcrowding on the lake.

Dispute 1:

The first dispute on the project involves the homeowners association and Resorts Development. It seems that the earthmoving operation at the site is creating a problem in

the neighborhood. Houses are covered with red Georgia clay and the once pristine streets are now red with mud.

The first dispute can be solved by negotiations between Resorts Corp. and the homeowners association. Both parties agree to meet at the field office trailer to discuss the issue. Adding confusion to the issue, however, C.A. Jones' contract does not call for dust control or silt fencing. This forces Resorts Corp. to negotiate with Jones as well as the homeowners to resolve the issue. The first negotiation will be between Resorts Corp. and C.A. Jones. Resorts Corp. will negotiate with the homeowners association after he works out a solution with Jones.

Notes pertaining to the positions of each party are included in appendix E.

Dispute 2:

While excavating the site of the proposed hotel on October 1, Tonka Earthmovers encounters a large outcropping of boulders. They had been hidden by heavy vegetation. Even Tonka's heavy equipment, a Caterpillar D-5, cannot budge the huge stones. The plans and specifications did not indicate the existence of this rock formation and it covers an area approximately 300 feet by 300 feet adjacent to the planned entrance to the hotel.

Tonka immediately notifies Jones of the problem and in turn Jones notifies Resorts Corp. within the time frame

stipulated by the changed conditions clause of the contract. Meanwhile, Tonka's personnel stop work and wait for a decision. After two days of inactivity, Jones directs Tonka to work in another area of the site while he decides what to do about the rock.

This dispute involves work delays to Tonka, additional money for rock removal not specified in the contract, and a decision on how the rock will be removed. Again, Resorts Corp. must negotiate with Jones concerning a change order for lost time and additional money.

Details of each parties positions are included in appendix E.

Dispute 3:

This dispute will involve mediation as Resorts Corp. and Jones cannot agree on how to remove the rock. Negotiations in dispute 2 resulted in additional time and money to remove the boulders, but the agreed upon method of removal was not successful and Tonka's earthmovers wasted a week obtaining the larger bulldozer and 2 additional days trying to move the boulders to no avail. The boulders are very deep and a D-9 Caterpillar could not move them. Drilling and blasting was not and is not an option due to the close proximity of Allatoona Estates.

Jones is fed up with the delay and Resorts Corp's inability to make a decision. Negotiations to correct the

problem have broken down and Jones and Tonka have left the site awaiting Resorts Corp's decision. Resorts Corp suggests they use a mediator to help them reach an agreement and Jones agrees.

Details of each parties positions are included in appendix E.

Dispute 4:

As a result of the first mediation, Resorts Corp. granted Jones a change order for a time extension and additional money to remove the boulders. Jones (actually Tonka) will use a rock drill and an expensive chemical splitting compound to break up the rock and a Caterpillar D-9 to remove the rock. Jones' forces, unfamiliar with the chemical splitting compound, used twice as much as the Resorts Corp. designers specified in the change order agreement. Also, tracks on the bulldozer broke three times during the excavation and removal of the rock. Jones (Tonka) wants to be paid for the excess cost of the splitting compound and for the repairs to his bulldozer. Resorts Corp. is beginning to lose patience with the boulder problems and Jones continued attempts to get more money.

Again, negotiations break down and a mediator is called in to bring the parties to an agreement. Details of each parties positions are included in appendix E.

Dispute 5:

It has been two years since Tonka first hit rock and the project is complete. Residents from Allatoona Estates are happily playing golf at the new resort and Tonka and Jones are out breaking new ground. One problem, however, still exists. Jones has filed a \$1,000,000 claim against Resorts Corp. for damages and delays during the construction of the hotel and golf course.

The contract included an arbitration clause and Jones has utilized it by filing for arbitration with the AAA. Resorts responds and the two parties begin the process of resolving one final project dispute.

Details of the claim and the parties positions are included in appendix E.

RESOURCES

Although no texts have been written that completely cover the proposed course material, the instructor has several resources available to assist him in presenting the material. The following list is not all inclusive, but rather a guide to possible resources:

Readings:

Books

Fisher, R. & Ury, W.. Getting To Yes. Boston: Houghton Mifflin, 1981.

Raiffa, H.. The Art and Science of Negotiation. Cambridge, Mass: Harvard University Press, 1982.

Lewicki & Litterer. Negotiation: Readings, Exercises, and Cases. Homewood, Ill: Harper & Row, 1985.

Goldberg, Stephen B., Green, Eric D. and Sander, Frank E. A.. Dispute Resolution. Boston: Little, Brown & Company, 1985.

Hohns, Murray H.. Preventing and Solving Construction Contract Disputes. New York: Van Nostrand Reinhold Company, 1979.

Journals and Magazines (selected articles)

The Arbitration Journal of the American Arbitration Association

The Construction Lawyer

Construction Claims Monthly

Civil Engineering - ASCE

Journal of Management in Engineering - ASCE

Journal of Construction Engineering and Management - ASCE

Journal of Performance of Constructed Facilities - ASCE

Journal of Professional Issues in Engineering - ASCE

Avoiding Contract Disputes - ASCE

Construction Management: A State of the Art Update - ASCE

Quality in the Constructed Project - ASCE

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

This research report has presented a proposed course of study of Alternative Dispute Resolution in the Construction Process intended for graduate students in construction management. The need for such a course is untested. Most educators and industry leaders agree that the construction manager must have good communication skills, but few are specific about how to insure the graduate engineer will obtain such skills. The ability to convey written ideas concisely is important, but the construction manager uses oral communication and negotiating skills far more than the written word.

James W. Poirot, Chairman of the Board of Ch2M Hill, stresses the need for the project team (designers and construction managers) to be aware that their actions may cause disputes and that they must respond to disputes in a timely and compromising manner to assure project goals are met and that the project team remains harmonious [Poirot 88]. How and when the construction manager becomes aware of the impact of his actions is for educators and industry leaders to debate.

This ADR course offers the construction manager a practical view of his role in the disputes process. By no means is this course a total solution to the education of the

construction manager in dispute resolution. The course itself must evolve over time into the proper mix of skill building and education of ADR methods. Educators must be prepared to explore new ground and offer students and industry a chance to gage the usefulness of a given course of study. The education process is ongoing. As Haltenhoff stated "Educated graduates are less productive upon employment (than trained graduates), but have potential in a broad area of future responsibility." [Haltenhoff 86]

"Alternative Dispute Resolution in the Construction Process" is proposed with the idea that exposure to the topic will enhance the graduate construction manager's ability to learn from future experience.

RECOMMENDATIONS

It is recommended that the following areas be considered for further study:

1. As a first attempt at organizing the topics and presentation of ADR to the construction management student, the course will undoubtedly have its shortcomings. The instructor of the course must take note of this and exercise flexibility in modifying the course as warranted.

2. As there is no complete text on the subject of ADR in construction, attention should be paid to assimilating class notes as a possible prelude to organizing and publishing a thorough text on the subject.

3. In conducting research on the subject of ADR in construction, it was apparent that little scientific study had been conducted into the cost and time requirements for ADR methods. Appropriate study may include a comparison of ADR methods to each other or to construction litigation, or an analysis of executive time spent in resolving construction disputes.

4. As discussed briefly in chapter four, control of some construction ADR processes is moving towards lawyers and away from owners and construction managers. An examination of the lawyer's motivation (whether intentioned or not) in excluding the principals of the dispute in its resolution methods may be in order.

5. The AAA in conjunction with accredited construction management programs should investigate the possibility of forming a educational partnership in construction ADR.

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Appendix A
Mediation Case Studies

Three Construction Cases: A Mediator's View

by Douglas Yarn
Atlanta Regional Office

In 1987, I participated in a variety of mediations. Three of these, covering a broad range of disputes common to construction projects, offer useful insights into the dynamics of the mediation process and the kind of role the mediator can play to prompt a settlement.

While a structured process and a trained neutral facilitate discussion and improve the general atmosphere for settlement, parties often reach the mediation/arbitration stage through an accumulation of many minor confrontations that encouraged them to become entrenched in their positions. Litigators have estranged the parties further by preparing the case for an adversarial proceeding. This poses a challenge to the mediator.

In an ideal world, the contracting parties would engage directly

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in principled negotiation to control disputes as they arise. Because this is usually not the case, the construction mediator is faced with entrenched disputants convinced as to the merits of their positions. The emotional level is surprisingly high. Usually neither party is prepared or willing to be coaxed into a compromise settlement. Successful mediation requires swift venting and dispersal of the parties' emotions. The mediator cannot merely promote discussion between the parties, but must convince them that a rational business decision must be made. Settlement is almost always the most rational choice if the parties can agree in identifying the issues in contention and can recognize the risks of not settling. They look to the impartial mediator to help clarify the facts, narrow the issues, and illuminate the risks. It is therefore essential that the construction mediator have some expertise in construction and construction law to justify the trust and confidence of the parties. This contrasts with some mediation philosophies that hold that a mediator need not ex-

press an opinion as to a party's position or the settlement value of a particular case. In construction disputes, the parties want to test their positions and get feedback from the mediator, including suggestions for settlement.

In Case 1, I took the more passive approach and did not achieve settlement. In Cases 2 and 3, I reviewed the legal arguments in advance, actively voiced my impartial impressions of their positions, and pushed for negotiable ranges of settlement in caucus. If the parties could not agree on a range, I suggested one. This active approach is vital in convincing parties to move from entrenched positions.

We know that most disputes are settled prior to trial or arbitration. The key question, therefore, is usually not if a dispute will be settled but how long settlement will take. Mediation is an enormously valuable tool because it provides the opportunity for the parties to rethink their positions and reach settlement sooner, often with significant savings of dollars and time.

(continued on page 4)

PUBLISHED BY THE AMERICAN ARBITRATION ASSOCIATION

Case 1

In a suburban pub, an intoxicated patron fell down a flight of stairs and died from his injuries. In the subsequent lawsuit, the contributory negligence of the deceased was overshadowed by certain building code violations that proved the pub to be an unsafe place in which to imbibe.

The pub's owner hired a contractor to correct those defects and build an addition for \$50,000. A standard AIA contract with an AAA arbitration clause memorialized the relationship. A dispute arose when, according to the contractor, the owner provided vague architect's drawings, resulting in expensive modifications and delays. In addition, the owner approved change orders and requested modifications to the original plan that exceeded the total work anticipated at the time of the contract. The contractor also claimed that the owner refused to let it correct problems on the final punch list even though the project was substantially complete. In all, the contractor demanded arbitration to recover the balance on the contract and for approved change orders, a total of \$18,000.

The owner contended that the contractor did incomplete and inferior work, failed to complete the project on time, and did not properly supervise its subcontractors. The owner also said that he approved no change orders and that all of the items the contractor claimed as extra were in fact contemplated in the original contract and drawings. Withholding the last draw on the contract, the owner said it would cost him \$11,000 to correct and finish the project.

When it filed for arbitration,

the contractor suggested that the parties first try mediation. Eventually, the owner agreed.

The mediation was held at the pub. The owner was accompanied by a "friend" with construction expertise and another builder who had bid to finish the project. The contractor was represented by the project manager and crew foreman. From the opening statements, it was clear that the parties were extremely hostile. The owner was not interested in compromise, refused to listen to others at the hearing, and treated the mediation as merely an opportunity to lambast the contractor. Essentially, the owner presented the contractor with a punch list of defective work. The contractor, on the other hand, appeared more reasonable, wanting the opportunity to reach a compromise while also volunteering to correct and finish the job. The owner refused the offer.

After two caucuses were held with each party, the owner agreed to offer only \$4,000 to settle. The contractor would not agree to less than \$15,000. I attempted to have the parties structure a settlement by agreeing on what items of work were specified or not specified in the contract and what items were deficient or incomplete. The parties, however, were not willing to negotiate on the basis of such details. I ended the mediation after a frustrating three hours by recommending that the owner pay \$7,000 to settle. The owner would not agree.

The matter was arbitrated and the award was approximately \$7,500 in favor of the contractor, with the parties splitting a \$1,000 administrative fee. In retrospect, the owner could have saved considerable time, expense, and legal fees even if he had settled at the mediation for \$9,000 to \$11,000. The contractor would have come out approximately the same if it had settled for \$3,500 to \$5,000.

Case 2

A medium-sized city contracted with the low bidder on a downtown renovation project. The \$2,600,000 contract included an AAA arbitration clause, a strict completion date with a liquidated damages penalty clause, and a "no damages for delay" clause.

The contractor contended that the city's architect was unqualified and actively interfered with the contractor's efforts to complete the job on time, that the municipality caused considerable delays by restricting the contractor's access to various parts of the project site, and that the bid specifications contained latent defects regarding the mixture of topsoil for planters and median strip gardens. In addition, the contractor encountered significant unanticipated subsurface conditions not shown in the bid specifications. The contractor claimed that the project was substantially complete and that even though completion occurred after the deadline, the city was directly responsible for all delays because of its actions and the actions of its architect.

According to the city, the contractor failed to properly manage, and schedule the job. The work was inferior and all specifications were easily obtainable by an experienced contractor. The city denied that the architect interfered and said that even if he had, he was not an agent of the city. Finally, the city claimed that the contract protected it from any liability and that the contractor had a duty to investigate subsurface conditions itself. It noted that the contractor did not substantially complete the project until 544 days after the deadline.

The contractor demanded arbitration on the unpaid balance of the contract plus cost overruns exceeding \$2,000,000. The city counterclaimed for liquidat-

ed damages, and for numerous other damages, amounting to \$600,000. Ten days prior to arbitration, one party suggested to the local AAA Regional Vice President that settlement discussions, assisted by the AAA, might be helpful. The AAA then suggested mediation to both parties—an option also recommended by the arbitrators—and a session was set for the following week.

The day before the mediation, I received written summaries of each side's position. These summaries had been originally requested by the arbitrators simply to make the hearing more efficient; in writing them, however, the parties were led to narrow the issues and to understand the arguments of their opponents. I believe this effort had a considerable positive influence on the settlement discussions.

The mediation, which began at 10:00 a.m., was held in the offices of the city's outside counsel. After a joint meeting in which each side made an oral summation of its position, I encouraged the parties to engage in limited rebuttals and then separated them, placing them in different conference rooms. I caucused with each party several times, reviewing the weak points of each case and discussing the range of probable arbitration awards. Each party confidentially shared with me its best settlement figure.

The caucuses revealed the politically sensitive nature of this dispute. The downtown project was a key development goal of the mayor. The renovations caused considerable disruption of downtown businesses and traffic, enraging the impatient citizenry. The architect, an unusual character, had been chummy with city officials and was supported by them when the unsatisfactory progress of the project became a

favorite topic of the local press. After substantial completion, it was revealed that the architect, who developed the master plan and supervised on behalf of the city, had made personal investments in downtown real estate in coordination with the renovation plan. In unrelated suits, he got slapped with several million dollars of punitive damages. By the time of the mediation, he had fled the state and his whereabouts were unknown. City elections were approaching, with the mayor among the candidates for re-election.

This situation greatly affected the dynamics of the mediation. Any settlement agreement would have to be recommended to the mayor by the city attorney. The mayor, in turn, would have to sell the plan to the city council, which had been advised by a hired expert to settle for no more than \$200,000.

After the first caucus, the contractor offered to settle for the unpaid balance of the contract, his overrun costs, and the cost of pursuing arbitration, a total of \$775,000. The city indicated that it would pay more than \$200,000, but not \$775,000. After two more caucuses, during which we re-examined each element of damages, excluding speculative damages, the parties were still \$275,000 apart. The attorneys then began direct negotiations without me. By 3:00 p.m., the parties were approximately \$100,000 apart. I reminded them that the arbitration could last 10 days and cost each party a minimum of \$50,000.

Settlement was reached in principle by 3:30 p.m., with the parties agreeing to suspend arbitral proceedings. Over the next several weeks, the fine points were ironed out in direct negotiations. The mayor won the election, which also resulted in his control over the city council. The

council subsequently approved the settlement.

Case 3

A contractor that built interiors for shopping malls hired a subcontractor to erect freestanding partition panels and walls. The job was large and entailed strict deadlines.

The contractor contended that the subcontractor failed to properly man and schedule its part of the project, forcing the contractor to hire extra workers, pay substantial overtime, and accelerate other parts of its project in order to correct delays attributed to the subcontractor. It also complained that the subcontractor did defective work and failed to perform certain caulking, requiring the contractor to hire another subcontractor to complete the job.

The subcontractor countered that the contractor supplied defective materials and failed to supply other materials. It demanded arbitration, asking for \$84,000 representing the unpaid balance of the contract, change orders, and cost overruns. The contractor counterclaimed, requesting \$108,000 for monies spent to complete the job, costs of accelerating other subcontracts, and for expenses incurred as a result of defective work.

Mediation was suggested by the local AAA Regional Vice President during the preliminary hearing. At the resulting mediation session, I heard opening statements by each of the parties, who then engaged in a very spirited debate. To avoid creating a completely negative atmosphere, I had to separate the parties. Confidential caucuses with each side revealed that the parties took the dispute very personally and were determined not to compromise. Eventually, however, I impressed upon each the substantial weaknesses in its

position. With respect to damages, both parties agreed that the majority of their claims were speculative and difficult to substantiate or to causally relate to the other side's failure to perform. In addition, both parties agreed that the costs of arbitration and the range of probable awards made settlement the most attractive option.

Movement began when the contractor agreed to drop its counterclaim and offer the subcontractor the nuisance value of the case, which it estimated at \$7,000. The subcontractor agreed to drop his speculative claims and discount

the unpaid balance of the contract for the same nuisance value. This still left the parties approximately \$15,000 apart. Each party made several small incremental changes in their positions which I shuttled back and forth until the parties refused to move closer.

I held a joint session with just the attorneys to reach an agreement on supportable damages. Each side agreed that arbitrators would probably award the subcontractor the unpaid balance of the contract, \$34,000, but that there was a high probability of an offset of \$25,000 for supportable claims made by the contractor. I argued to the principals that the difference, \$9,000, was a good guidepost for settlement. The contractor offered to settle for \$9,000. The subcontractor re-

fused to budge from \$16,000. In caucus, the latter revealed that it had to pay at least \$10,000 to cover unpaid labor costs on the job or it could be put out of business. To facilitate settlement, its attorney agreed to reduce its fees.

In another joint session with just the parties' attorneys, I persuaded them to convince their clients to split the difference. At their urging, the parties agreed to settle for \$12,000. Afterwards, I discovered that the contractor had predetermined not to pay more than \$5,000 to settle, but realized after spending half a day in mediation that its time was too valuable to waste in arbitration. Its representatives cheerfully thanked me and hurried from the room. ■

Mediation: a case study

A substantial claim on the part of a highway contractor against a highway department led the parties involved to seek the assistance of a mediator.

The mediator was retained by the legal counsel of the contracting agency to "review a change order prior to final payment on a large project."

"The contractor's interpretation would have doubled the budget allocation for the cost of the affected item originally set, thus substantially increasing the project cost," the owner's spokesman said. "The problem stemmed from the original specifications and, in particular, a grammatical inaccuracy. This error was the cause of conflicting interpretations of the specification by the owner and the contractor," the owner representative said. Thus, in this situation, a mediator was needed to arrive at an equitable solution because the specification was ambiguous.

The mediator was retained when the owner rejected the claim and liti-

gation appeared to be the next step.

"The owner wanted a further objective look at the problem and the contractor expressed his willingness to consider seriously any finding I might reach," said the mediator.

The next step was the individual interview with each of the parties involved. The mediator interviewed the owner and his engineers and the contractor in separate meetings. The discussions were used to help identify the issues as each party perceived them and to define their positions. At no time did all parties meet together in the mediator's presence.

"I was given full access in confidence to the documents of parties during these interviews. Following these discussions, the parties submitted a written statement of their contentions and included all relevant documentation in support," explained the mediator.

Following the interviews, the mediator evaluated the material gathered and submitted a report based on his findings to the owner regarding the change order and recommen-

dations for a resolution. As the original contract did not provide for mediation, the owner paid for the professional services.

Both the owner and the contractor agreed to the recommended solution. The process settled the problem expeditiously over a period of a few months and all parties believe that the legal fees and time delays avoided by not resorting to litigation represented a saving to those involved.

The system of mediation is rather clear and straight-forward, but one owner representative said that the individual mediator's personal character has much to do with the success of the effort. What characteristics are they?

"A commanding presence, an individual well-versed in our field of civil engineering, and someone who has held responsible positions in the different sectors is a definite plus," explained the representative. "The mediator who handled our case had also headed his own design firm," and this, he explained, afforded the mediator authority and knowledge which gave us confidence in his decision.—mhl

Appendix B

Arbitration Case Study

CHILLUM-ADELPHI
VOLUNTEER FIRE
DEPARTMENT, INC.
v. BUTTON &
GOODE, INC.

Court of Appeals of
Maryland, 1966.
242 Md. 509, 219 A.2d 801.

Source: *Legal Aspects of
Architecture Engineering
and the Construction
Process* 3rd Ed. by
Justin Creet

BARNES, Judge.

[Ed. note: Court's footnotes omitted.] This suit was brought by Button & Goode, Inc. (appellee) to enforce an arbitration award entered after Button & Goode and Chillum-Adelphi Volunteer Fire Dept. Co. (appellant) had submitted to arbitration proceedings in regard to a dispute which arose concerning whether Chillum-Adelphi could keep certain sums due Button & Goode under a contract for the erection of a fire house. This money was retained by Chillum-Adelphi as liquidated damages occasioned because of Button & Goode's delay in completing construction of the building. Button & Goode was granted summary judgment in its suit to enforce the arbitration award. This appeal followed.

On April 30, 1962 Button & Goode (contractor) and Chillum-Adelphi (owner) entered into a construction contract whereby Button & Goode agreed to erect two buildings for Chillum-Adelphi. Plans and specifications had been drafted by the owner's architect, Philip W. Mason. The arbitration proceedings and this suit are concerned only with one of the two buildings, the other having been fully completed as required by the contract.

Article 2 of the construction agreement provided that work to be performed under the contract was to commence upon written notice; and the building was to be substantially completed 180 calendar days from the date of such notice. Article 45 of the American Institute of Architects' General Conditions of Contracts, made part of the construction agreement in this case by Article 1 of that agreement, provided that the time in which the contractor agreed to complete the work was of the essence of the contract, and failure to complete the work within the time specified would entitle the owner to deduct as liquidated damages out of any money which may be due the contractor under the contract, the sum of \$50.00 for each calendar day in excess of the 180 days until the building should be substantially completed.

The owner's architect specified that one of the buildings was to be constructed of pre-cast concrete framing. Button & Goode could not commence work until that material was delivered to the building site, and the long and protracted delay of Nitterhouse Concrete Products, Inc. (Nitterhouse) in delivering the concrete frames caused a delay in completing the building beyond the 180 days agreed upon as the time within which construction was to be substantially completed. Chillum-Adelphi retained \$21,426.48 of the contract price as damages occasioned because of Button & Goode's delay in substantially completing the building.

Article 40 of the General Conditions of Contracts provided that the owner and contractor would submit all disputes, claims or questions arising under the contract to arbitration under the procedure then obtaining in the Standard Form of Arbitration

Procedure of the American Institute of Architects (AIA). Button & Goode filed a demand for arbitration with the American Arbitration Association (AAA). Chillum-Adelphi objected to the arbitration procedure provided by the AAA; however, the parties agreed to submit their dispute to arbitration by the AAA provided that the procedure complied with that of the AIA whereby the parties would be given the opportunity to examine and cross-examine all witnesses and introduce exhibits at any time during the hearing.

It was agreed between Button & Goode and Chillum-Adelphi that the issues to be decided by the board of arbitrators would be: (1) What damages, if any, should be assessed against the contractor in this case, and (2) Was the building completed at the time of arbitration?

A hearing was held by the board of arbitrators on August 26, 1964. The arbitrators found that the owner's architect had specified that pre-cast concrete materials of Nitterhouse's manufacture be used in construction of the building, that the contractor had made repeated attempts to have some other company substituted for Nitterhouse to supply the pre-cast concrete frames, but the architect refused to authorize a change because he expected delivery from Nitterhouse sooner than from another company since the order had been pending there for such a long time. Furthermore, a change of suppliers would have necessitated a change in the plans of the building.

Article 18 of the General Conditions provided that the owner's architect should extend the time for the completion of the building if the contractor be delayed in the progress of the work "for any cause beyond the contractor's control". The arbitrators found that Chillum-Adelphi was bound by the decision of its agent, its architect Mr. Mason, to use a product in the construction of the building which proved to be unavailable. The contractor was therefore not responsible for any delay in construction until January 11, 1963, the date Nitterhouse delivered the concrete frames. Under the circumstances, the delay was "beyond the contractor's control" and the architect should have extended the time for completion of the job.

After the pre-cast framing was delivered, Button & Goode proceeded promptly to resume work on the job. The building was substantially completed on August 10, 1963, 211 days after the framing was received from Nitterhouse.

The arbitrators found that Button & Goode was entitled to 180 days from January 11, 1963 for the completion of the job. Since the contractor required 211 days to substantially complete the building from the date the pre-cast frames were delivered, Chillum-Adelphi was entitled to \$1,550.00 as liquidated damages, or \$50.00 per day for 31 days. Chillum-Adelphi had retained \$21,426.48 from the amount due the contractor under the construction agreement. The board of arbitrators therefore awarded Button & Goode \$19,876.48 and divided the costs equally between the parties.

Button & Goode filed a petition for judgment on the arbitration

award

An arbitration award is the decision of an extra-judicial tribunal "which the parties themselves have created, and by whose judgment they have mutually agreed to abide." . . . When suit is brought to enforce the award, a court will not review the findings of law and fact of the arbitrators, but only whether the proceedings were free from fraud, the decision was within the limits of the issues submitted to arbitration, and the arbitration proceedings provided adequate procedural safeguards to assure to all the parties a full and fair hearing on the merits of the controversy. . . .

In *City of Baltimore v. Allied Contractors, Inc.*, . . . Judge Hammond, for the Court, said:

"Mistakes by an arbitrator in drawing incorrect inferences or forming erroneous judgments or conclusions from the facts will not vitiate his award. (citations omitted)

. . . the decisive primary question is not whether the judgment was right or wrong but whether impropriety, to a significant extent, brought about its obtention." . . .

Although a court may modify an arbitration award for a mistake of form such as an evident miscalculation of figures . . . an arbitrator's honest decision will not be vacated or modified for a mistake going to the merits of the controversy and resulting in an erroneous arbitration award, unless the mistake is so gross as to evidence misconduct or fraud on his part. . . .

In short, where parties have voluntarily and unconditionally agreed to submit issues to arbitration and to be bound by the arbitration award, a court will enter a money judgment on that award and enforce their contract to be so bound unless, notwithstanding that the arbitrator's decision may have been erroneous, the facts show that he acted fraudulently, or beyond the scope of the issues submitted to him for decision, or that the proceedings lacked procedural fairness. A court does not act in an appellate capacity in reviewing the arbitration award, but enters judgment on what may be considered a contract of the parties, after it has made an independent determination that the contract should be enforced.

There is no merit in Chillum-Adelphi's contention that the arbitrators went beyond the issues submitted to them for determination. . . .

Chillum-Adelphi's second contention is likewise without merit. The fact that arbitrators may fail to follow strict legal rules of procedure and evidence is not a ground for vacating their award. . . . The procedure followed at the arbitration hearing was fair and in full compliance with the AIA procedural rules which the parties agreed would govern the determination of their dispute. The record in the arbitration proceedings remained open for a full six months before the final award was entered. Additional evidence could have been presented to the arbitration board at any time during that six month period, and upon good cause shown the hearing could have been reopened.

Finally, we must discount Chillum-Adelphi's bald assertion that the determination of the arbitration board was unsupported by the evidence. There is no showing of lack of good faith or fraud on the part of the arbitration board, and we will not review the award on the merits. . . .

Appendix C

Mini-Trial Case Studies

Source: [CPR 85]

U.S. ARMY CORPS OF ENGINEERS MINI-TRIAL

Issue: Industrial Contractors, Inc., which had a Corps of Engineers contract to supply construction services to a military facility, claimed that its performance had been improperly accelerated by the government and sued for additional compensation. The contracting officer denied the claim, and Industrial appealed to the Armed Services Board of Contract Appeals.

Status of case before mini-trial: Much discovery had been completed by the time the parties agreed to a mini-trial.

Mini-trial process: Over a two-day period, each side had three and one-half hours for its case-in-chief, ninety minutes for cross-examination, and ninety minutes for redirect. An open, hour-long question-and-answer session concluded each day. Settlement negotiations began on the third day.

Neutral: A former Claims Court judge served as neutral advisor. At the close of the second day, he orally advised the parties of the relative strengths and weaknesses of their cases. (Under the Corps of Engineers' mini-trial procedure, a written opinion from the neutral is optional with the parties.)

Result: Following the oral information exchange, the parties settled their dispute after twelve hours of negotiating.

Savings: Hearings before the U.S. Armed Services Board of Contract Appeals frequently take weeks, and the Board's decision is often not announced for several months. In contrast, the mini-trial hearing lasted only two days, with settlement negotiations completed in twelve hours.

CONTROL DATA MULTI-PARTY CONSTRUCTION MINI-TRIAL

Issue: Construction dispute involving Control Data's corporate headquarters, which featured a fourteen-story glass wall that leaked when it rained.

Status of case before mini-trial: Control Data brought suit against all who had failed to repair the flaw: two large contractors, a host of subcontractors, a construction company, a glass manufacturer, and an architectural firm. They faced the prospect of massive discovery.

Mini-trial process: The lawyers for the three principal parties -- Control Data, the architect, and the builder -- agreed to attempt resolution through a mini-trial, avoiding involvement of subcontractors at this stage. If the three major parties reached a settlement, the architect and builder would try to convince the others to accept it. Each party appointed its president or a senior manager with settlement authority to participate in the mini-trial. Each side had about seventy-five minutes to present its case and question the others. The panel of executives could participate in the questioning. The oral information exchange lasted about five hours. Control Data outlined its position through its litigation counsel and a vice president for real estate and construction. The cases of the architectural firm and builder were presented by senior line managers, with their lawyers playing a minor role.

Neutral: No neutral advisor was used. The lawyers had initially specified that neutral outside engineers, architects, and a lawyer would be selected to sit with the panel as experts, but the requirement was later eliminated to simplify the procedure.

Result: After the mini-trial, the three panelists reached agreement in about one and one-half hours. A flexible solution that would have been difficult to achieve in court, the agreement involved payment of several million dollars to Control Data and an arrangement for the contractor and architect, at their expense, to replace the outside of the building with

a new technology over a period of three years. After the agreement was reached, the contractor and architect negotiated with the subcontractors and, in three months, secured their agreements to contribute to the damages and help repair the structural flaws.

Commentary: A Control Data executive observed that the mini-trial preserved business relationships. The company would consider using the same contractors and architects again. If litigation had proceeded, it would have been difficult, if not impossible, to maintain business relationships.

AMOCO MULTI-PARTY CONSTRUCTION MINI-TRIAL

Issue: Six-sided construction contract dispute among Amoco, a general contractor, and several subcontractors.

Status of case before mini-trial: An Amoco attorney proposed a mini-trial about nine months into the lawsuit, before litigation could proceed in earnest. Several claims and counterclaims had been filed, and one subcontractor had initiated arbitration against the general contractor.

Mini-trial process: Three parties -- Amoco, the general contractor, and one subcontractor -- participated in the mini-trial. (The other subcontractors did not participate because their claims were for fixed amounts not in dispute.) Each company had one hour to present its case, plus half an hour for rebuttal. Only the business representatives were permitted to ask questions.

Neutral: The parties decided not to use a neutral advisor to moderate the proceedings or give an advisory opinion. However, an independent "consultant engineer" was present. He could be called on by all parties and, if the principals desired, sit in with them during settlement negotiations.

Result: Less than four hours after the oral information exchange, the business principals reached an agreement. The settlement was not reduced to writing; the parties simply wrote checks and signed releases.

AUSTIN INDUSTRIES: TWO CONSTRUCTION MINI-TRIALS

Issues: Two construction disputes involving cost overruns, one between Austin Industries, a large Dallas-based construction company, and the Nebraska Public Power District (NPPD); the second between Austin Industries and Union Oil of California.

AUSTIN-NPPD

Mini-trial Process: In the Austin-NPPD mini-trial, each side had one full work day to present its case to the neutral, in contrast to most mini-trials, in which each side has at most half a day.

Neutral: A retired engineer familiar with the power plant business served as neutral. After the presentations, the neutral toured the construction site with a representative from each side. He was then allowed about six weeks to request additional information. When he later brought the parties together to see whether a settlement could be negotiated, they could not agree. The neutral then issued a report detailing his findings and assessing the likely outcome at trial.

Result: The parties settled in the range of \$4 million, adopting the dollar amount in the neutral's report.

Savings: Austin's general counsel estimated that the out-of-pocket expenses for the mini-trial were \$35,000; litigation would have cost \$250,000 or more. The mini-trial took four months, and was conducted while an unrelated case was being litigated between the parties.

Commentary: Government contract disputes, such as this one, are often difficult to settle. The possibility of hindsight examination by a legislative audit committee or a reporter may make even the most scrupulous public official reluctant to pay taxpayers' money to a contractor in settlement of a dispute. The mini-trial is helpful in the government contract setting because it offers a rational method for discussing the merits of a dispute and provides the imprimatur of a respected neutral on the negotiated compromise.

Appendix D

National Construction Industry Arbitration Committee

American Consulting Engineers Council

American Institute of Architects

American Society of Civil Engineers

American Society of Interior Designers

American Society of Landscape Architects

American Subcontractors Association

Associated Builders and Contractors, Inc.

Associated General Contractors

Associated Specialty Contractors, Inc.

Construction Specifications Institute

National Association of Home Builders

National Society of Professional Engineers

National Utility Contractors Association

Appendix E
Role Play Position Fact Sheets

Dispute 1: Homeowners Association Positions

1. Mary Smith and Bill Adams represent the homeowners as president and vice president respectively. They have been granted full decision making power by the association. No individual homeowners may claim against Resorts in this matter without utilizing the association.

2. The average price of a home in Allatoona Estates is over \$275,000 and its average age is 5 years. Most of the houses are brick colonial with wood trim and gables.

3. Mary and Bill are fighting to get all of the mud covered homes washed and repainted at an average of \$6,000 per home. Sixteen homes are affected. The cost of washing a home without painting is \$350.

4. The homeowners association also wants Resorts to clean the mud from the streets and wash out the storm drains. All work must be certified.

Dispute 1: C. A. Jones and Sons Inc. Positions

1. Jones' subcontractor Tonka Earthmovers warned Jones about the dust and silt erosion, but Jones ignored him because the specifications did not require silt fencing or periodic site watering. He feels a little guilty and won't try to take advantage of Resorts Corp. by overpricing his change order for silt fencing and a water truck.

2. Tonka's quoted price for the change order is \$13,000. This includes 2,000 feet of silt fence and hay bails and a water truck passing over the site twice a day.

3. Jones will settle at \$13,000 but doesn't want to set a bad precedent so he'll start at \$15,000 and bargain hard poor mouthing his way through the negotiation.

Dispute 1: Resorts Development Corp. Positions

With Homeowners

1. He does not want to stir up any more bad feelings about his project with the locals. He does not need the association acting like a watchdog and whistle blower.

2. He also does not want to pay \$96,000 to have all 16 houses washed and painted. He will press for washing only.

With C. A. Jones

1. Resorts is basically at the mercy of Jones because the contract did not ask for silt fencing and dust control.

2. Resorts must get a low price from Jones because the potential for big losses with the homeowners exists.

3. Resorts will take a position that Jones and Tonka should have known to provide erosion control, but will eventually give in if Jones does not budge.

Dispute 2: C. A. Jones Position

1. The rock was an unforeseen site condition not shown or discussed in the plans and specifications.

2. Jones did not make a thorough inspection of the site before negotiating a contract price with Resorts. If he had, he would have encountered the boulders. The inspection was required by the specifications.

3. The two day work stoppage by Tonka should not have occurred. Jones' superintendent should have told the earthmovers to work in another area as soon as they encountered rock. Resorts' design team construction manager suggested to the superintendent that other areas of the site could be excavated.

4. Tonka's quote to Jones for delays and rock removal is \$14,000. The price includes 2 days delay and the difference in cost of equipment (D-5 vs D-9).

5. Jones suspects Tonka's quote is low so his opening position will be \$20,000. He will settle for Tonka's quote plus 10% or \$15,400. He also wants a 2 day time extension.

Dispute 2: Resorts Development Corp. Position

1. Resorts is losing its contingency money early in the project. With the homeowners settlement and the cost of silt fence and dust control he has already incurred two unexpected expenses.

2. Resorts has discovered why the plans did not show the boulder outcropping. The land surveyor encountered a hornets nest when he was surveying the site and did not survey the grid that included the boulders. He interpolated the topography for that grid and stayed away from the hornets nest.

3. Although Jones notified Resorts immediately of the changed condition, he did not proceed with other available work. Resorts does not think a time extension is justified.

4. Resorts' designers estimate that the additional equipment and rock removal will cost \$14,000. They will go no higher than \$14,750.

Dispute 3: C. A. Jones Position

1. Jones feel he has wasted 7 workdays trying to live up to the change order agreement. He is still mad at the surveyor and is carrying a big chip on his shoulder because a potentially easy project is running into snags because of a stupid hornets nest.

2. Jones proposes to drill and blast the rock at a cost of \$38,000. He wants a time extension for the failed attempt at removing the boulders with the D-9 and 14 additional days for drilling and blasting. Jones is not concerned about the homeowners association.

3. Jones has heard about the chemical rock splitter but has never used it. He thinks it's a gimmick and that the cost is too high for a "few bags of powder."

4. He must be coaxed and convinced into trying the new method.

Dispute 3: Resorts Corp. Position

1. Resorts is losing money in the earthwork phase of the project. He may have to scale down some interior finishes if he continues to lose money.

2. Resorts' CM suggests that Jones use the rock splitting compound to remove the boulders. He knows that blasting may cause some structural damage to the homes in Allatoona Estates. He estimates the job will take \$ 11,000 of compound, about 50 bags and about \$7,500 for drilling and removal; total cost \$18,500 less than half of Jones' proposal. The compound works within 24 hours and Resorts is prepared to offer 10 days time extension with overhead.

Dispute 4: C. A. Jones Position

1. Jones felt he gave in during the last mediation by using the chemical splitting compound. His field supervisor misread the directions and his workers wasted the expensive chemical by adding too much compound to mixtures and throwing away broken bags.

2. Jones really hates the surveyor now and has publicly threatened to hang him if he should visit the site. Jones now wishes he would have retired before he took this job.

3. Tonka's bulldozer operator had not worked with rock very often and operated his equipment as if he were on common earth. The track damage was mostly his fault.

4. Jones is asking for \$11,000 for the extra compound and \$3,500 for the repairs to the bulldozer.

Dispute 4: Resorts Corp. Position

1. Resorts has lost his patience with Jones. He does not want to pay him anything for the excess compound or the damage to the bulldozer caused by Jones' incompetent crew.

2. Now that the rock is removed, Resorts can see the project taking shape and he wants to bury the hatchet and get on with the job at hand. He is willing to give a little to get relations back on a higher level.

Dispute 5: C. A. Jones Position

1. Jones' claim includes the following items:

\$500,000 for delays caused by rock removal problems and weather. This figure can be broken down into office overhead, labor, and supervision. Jones claims 100 delay days. Actual provable delays are about 45 days.

\$200,000 as liquidated damages held by Resorts for late completion. \$2,000 a day for 100 days.

\$200,000 being held as retention on progress payments pending completion of the punchlist. Over 50 items remain on the list, mostly interior finish and plumbing leaks. He and Resorts don't have the same quality standards and several of the finish items are contested.

\$100,000 to cover lost profits due to poor management and supervision.

2. Jones knows that his claim is not completely justifiable, but he has to make a profit on this job so his claim must look credible.

3. Jones knows that Resorts' CM did not keep good records so he will try to confuse the issues by making up reasons for delays.

Dispute 5: Resorts Corp. Positions

1. Resorts knows that he delayed Jones about 45 days but held the liquidated damages are intended as additional leverage to force Jones to complete the punch list.

2. Resorts has very high standards for quality but he is trying to get superior grade finishes from average quality materials. He is being unreasonable.

3. The contract calls for delays due to weather if rainfall for the day in question exceeded the average for that day over the past three years (data from local marina is the standard). Records indicate 7 weather days delay. Time extensions are allowed without additional money.

Dispute 5: Arbitrator's notes

1. Indicate a visit to the site to determine if contract quality standards have been met with interior finishes.

2. Be forceful in applying rules and procedures.

Role Play Instructor's Notes:

1. The inclusion of adding the subcontractor's interest in C. A. Jones' claim would complicate the case and possibly add more realism.

2. The need for further or less detail in the fact sheets is open for discussion. AAA has cases that could be "sanitized" for facts and figures.